

ILLUSTRATED CATALOGUE

McLEAN BROS., RIGG & CO.



*Hindley Street, Adelaide, Victoria Street, Adelaide,
Lipson Street, Port Adelaide,*

ALSO AT

MELBOURNE SYDNEY, LONDON, NEW YORK.

McLEAN BROTHERS, RIGG & CO.,

McLEAN BROS., RIGG & CO.



SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

69, Elizabeth Street, Melbourne.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

McLEAN BROS., RIGG & CO.

SYDNEY,

MELBOURNE,



LONDON,

NEW YORK,

IMPORT WAREHOUSE,
FLEMING STREET, MELBOURNE.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

McLEAN BROS., RIGG & CO.

SYDNEY,

LONDON,

NEW YORK,

MELBOURNE,



EXPORT WAREHOUSE,

COLLINS PLACE, MELBOURNE.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

McLEAN BROS., RIGG & CO.,

WHOLESALE AND RETAIL

IRONMONGERS,

Handware, Wire, Metal, & Machinery Merchants,

41 and 43, HINDLEY STREET, ADELAIDE.

MACHINERY WAREHOUSE, VICTORIA STREET.

PORT ADELAIDE - - Lipson Street
MELBOURNE - 69, Elizabeth Street
" - - Williamstown
" Machinery, Collins Street West
SYDNEY - - 512, George Street
LONDON - - 9 and 11, Fenchurch Avenue
NEW YORK - - 52 and 54, New Street

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

INDEX.

SYDNEY,

MELBOURNE,

	PAGE
Ammunition - - -	87
Brushware - - -	66
Baths - - -	72
Bedsteads, Iron - -	90
Bicycles - - -	55-56
Boats - - -	87
Chaffcutters - - -	39-43
Corncrushers - - -	41-42
Churns - - -	70
Clothes Lines, Everlasting	71
Cricketing Goods - -	76
Dynamite - - -	88
Fence Standards, Iron -	85
Fencing Wire - - -	82
Fender Curbs - - -	69
Filters - - -	77
Gas Fittings - - -	73
Gates - - -	85
Grates and Mantelpieces	69
Guns - - -	86-87
Harvester and Binder	16-18
Hurdles - - -	85
Horse Gears - - -	44-47
Horse Rakes - - -	22
Iron, Galvanized Roofing -	80
Iron, Galvanized, Plain -	81
Irons, Flat and Box - -	71
Iron, Hoop - - -	82
Ice Machines - - -	72
Lines, Clothes - - -	71
Laundry Requirements - -	71
Lamps, Kerosine - - -	73
Lathes - - -	50-51
Lawn Mowers - - -	74
Lawn Tennis, &c. - - -	75
Leather Belting - - -	89
List of Agencies - - -	91

	PAGE
Mowers - - -	20-21
Oils - - -	65
Pumps - - -	31-38
“ Centrifugal - - -	36-38
Paints - - -	63-64
Ploughs - - -	23
Pulleys - - -	89
Rope - - -	81
Register Grates - - -	69
Refrigerators - - -	72
Racquets, Tennis - - -	75
Roofing Felt - - -	80
Sausage Machines - - -	70
Saws - - -	52-54
Scarifiers - - -	24
Self-rake Reaper - - -	19
Seltzogenes, Patent - -	77
Sewing Machines - - -	59-60
Sheep Shears - - -	83
Station Requirements - -	61-62
Standards, Fence - - -	85
Steam Engines - - -	10-13
Stoves, Cooking - - -	67-68
Sundries, General - - -	79
Thrashing Machines - - -	14-15
Traction Engines - - -	9
Tricycles - - -	57-58
Troughing - - -	82
Varnish - - -	65
Washhouse Requirements	71
Windmills - - -	25-30
Wire Strainers - - -	48-49
Wheelbarrows - - -	82
Weighing Machines - - -	78
Wringers - - -	70-71
Wire Netting - - -	84-85

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.

CABLE ADDRESS—

"MICROPHONE," LONDON.

"ASPHODEL," NEW YORK.

TRADE



MARK.



IN presenting this Catalogue to our friends and the Public we are quite aware that it is incomplete, in that we are receiving fresh Novelties and new and improved patterns of goods with every shipment from the Continent, England, and America.

In our very large trade in the Country it frequently happens that much business is done with Customers whom we have never come in contact with, and when the selection of goods is left to our own judgment we shall endeavour in this particular in future to give the same universal satisfaction to our Customers as we have been fortunate in doing hitherto.

Orders by post will have our most careful attention, and instructions as to transit will be as usual faithfully carried out.

From the fact of our having houses both in Melbourne and Sydney we have special facilities for quoting for any goods not obtainable in South Australia.

We shall be happy to supply these Catalogues on application.

Inspection of our stock, 41 and 43, Hindley-street, is invited.

McLEAN BROS., RIGG, & Co.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

The following is a List of Exhibitors whom we represent at the Jubilee Exhibition held in Adelaide, June, 1887, till January, 1888 :—

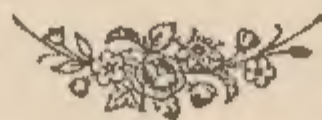
No. of Stand.	Name.	Description.	Place.
<i>Main</i> 45	Joseph Rodgers & Co.	Cutlers	Sheffield
<i>/</i> 228	Yates, Haywood, & Co.	Mantlepieces	London
42	C. L. Hett	Centrifugal Pumps	Brigg
123	Marshall, Sons, & Co.	Engines, &c.	Gainsborough
<i>/</i> 97	W. C. Scott & Sons	Guns, &c.	London and Bir mingham
<i>/</i> 36	Barwell, Sons, & Co.	Gas Fittings	Birmingham
<i>5</i> 98	Thos. Chatwin	Tools, Screw Cutting Ma- chines, &c.	Birmingham
<i>4</i> 64	John Brooks	Anvils, &c.	Stourbridge
<i>/</i> 82	Automatic Sporting Shrapnell Shell Company.. ..	Sporting Shells	Birmingham
<i>6</i> 63	Bratby & Hinchcliffe	Chandeliers	Manchester
<i>/</i> 56	J. Hall & Sons	Gunpowder and Explosives	London
<i>2</i> 92	Jas. Hinks & Sons (Limited)	Lamps, &c.	London
<i>/</i> 62	Broadhurst & Co.	Indiarubber, &c.	Manchester
<i>6</i> 614	Jones Bros. & Co.	Japanned Tinware	Wolverhampton
<i>5</i> 46	W. A. Lyndon	Spades and Shovels	Birmingham
<i>/</i> 382	Smith & Wellstood	Stoves	Glasgow
<i>5</i> 81	James Yates	Pewter Goods	Birmingham
<i>5</i> 69	Phillips & Sons	Bedsteads and Safes	Birmingham
<i>7</i>	Defries Patent Lamp Company	Lamps	London
91	W. & T. Avery	Weighing Machines and Scales	Birmingham
<i>4</i> 71	Blackwall Iron C mpany	Galvanized Iron	Blackwall
<i>/</i> 35	T. & C. Clarke & Co.	Holloware	Wolverhampton
196	R. Hunt & Co.	Chaffcutters, Horse Gears, &c.	Earls Colne
<i>4</i> 65	Anglo-American Tin Stamping Company	Tinware	Stourport
<i>/</i> 101	Robert Sorby & Sons	Carpenter's Tools	Sheffield
103	The Britannia Company	Wood Working Machines	Colchester
93	S. Sykes	Drilling Machines	Birmingham
159	Kirkstall Forge Company	Patent Shafting, &c.	Leeds
<i>5</i> 118	H. Henderson & Son	Belting	Dundee
<i>/</i> 307	Fortnam, Forrester, & Co.	Tennis Goods	London
<i>8</i> 155	Stack & Brownlow	Filters	Manchester
<i>5</i> 227	J. & J. Cordes & Co.	Nails	Newport
<i>4</i> 399	Goldsworthy & Co.	Glass and Emery Paper	Manchester
<i>/</i> 95	Burton & Ball	Sheep Shears	Sheffield
<i>Main</i> 619	S. Allcock & Co.	Fishing Tackle	Redditch
<i>4</i> 398	Shropshire Iron Company	Iron, Wire, &c.	Wellington
<i>3</i> 437	Ironmonger, Son, & Co.	Sash Cord and Twine	Wolverhampton
<i>Main</i> 124	Cartland & Son	Brass Foundry	Birmingham

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

List of Exhibitors (*continued*).

No. of Stand.	Name.	Description.	Place.
258	A. Ransome & Co.	Woodworking Machinery	London
314	F. Dark & Sons <i>Uau</i>	Cricketware	London
617	H. Elwell .. <i>5</i>	Tools	Wednesbury
	Allday & Onions ..	Bellows, &c.	Birmingham
381	Burys & Co. <i>21</i>	Sheep Shears	Sheffield
496	Wilkinson .. <i>3</i>	Pat Gongs	Birmingham
	Thos. Green & Son ..	Lawn Mowers	Leeds
611	G. H. Nicoll & Co. <i>5</i>	Mangles	Dundee
509	R. Kell & Co. <i>6</i>	Grindstones	Newcastle
	Walker & Co. ..	Patent Wire Strainers	Melbourne
812	Moline Plow Co. ..	Plows, &c.	Moline, Ill.
813	Baldwin & Co. <i>4</i>	Refrigerators	Burlington, Ver. mont, U.S.A.
789	Henry Chenny Hammer Co. <i>W. 1</i>	Hammers	Little Falls, N. Y.
788	Davis Sewing Machine Co. <i>4</i>	Sewing Machines	Watertoun
786	McCormick Co. ..	Mowers, Reapers, and Binders	Chicago
784	The Standard Handle Co. <i>4</i>	Axe Handles, &c.	Knoxville, Tenn.
814	Miller Lock Co. .. <i>4</i>	Locks	Philadelphia
787	U.S. Wind, Engine, and Pump Company ..	Windmills	Batavia
389	W. H. Dunkley .. <i>4</i>	Perambulators	Birmingham
618	R. Adams .. <i>4</i>	Door Springs	London
226	Follows & Bates .. <i>4</i>	Lawn Mowers	Manchester
613	Patent Enamel Co. <i>6</i>		Birmingham



ADELAIDE.

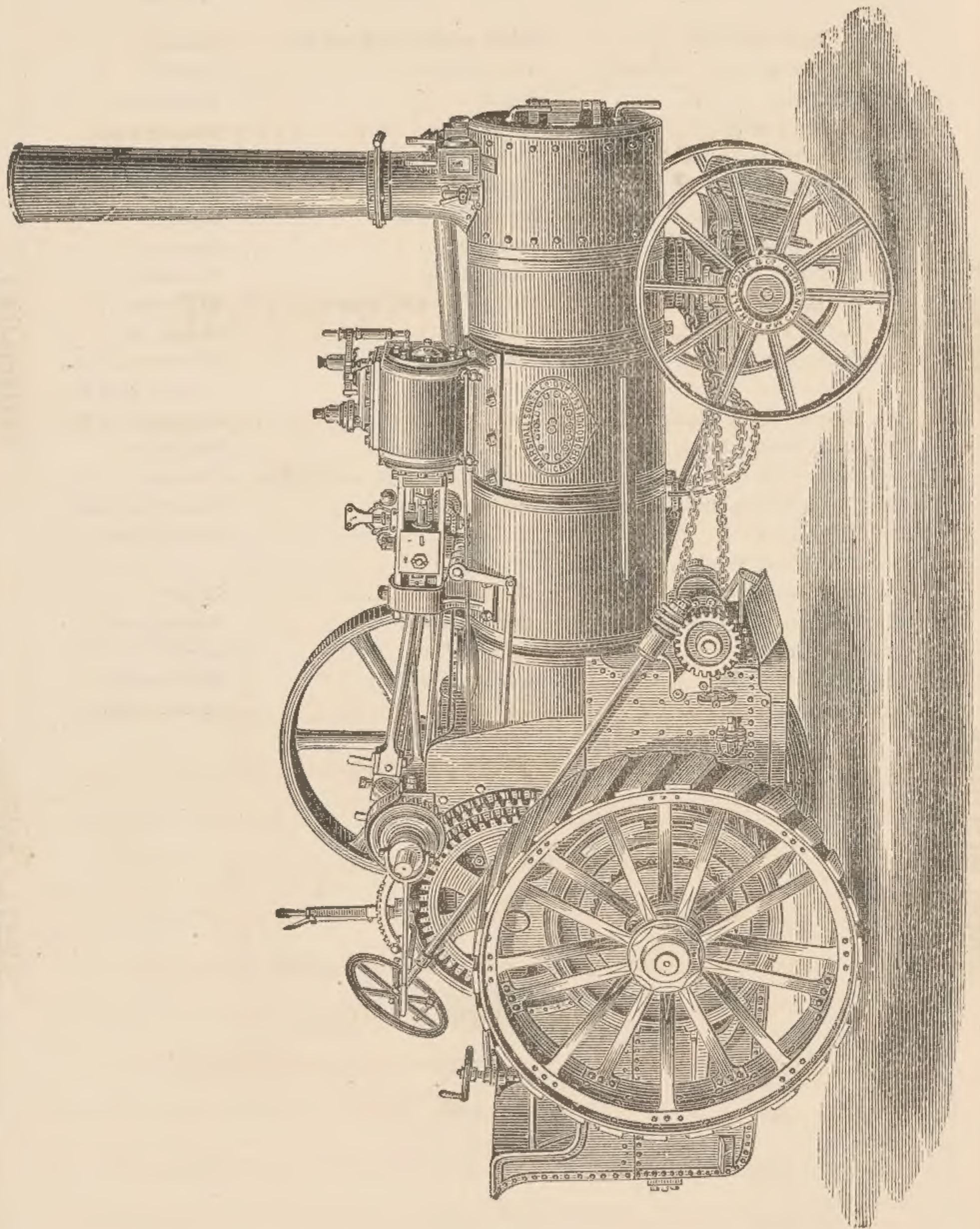
SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,



ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

MARSHALL, SONS, & CO.'S

Illustration on opposite page represents their

Improved Traction Engines

OR

AGRICULTURAL LOCOMOTIVE

*For Driving Threshing Machinery and Haulage on
Roads, &c.*



They are fitted with two speeds of Best Crucible Cast Steel Gear and with differential motion for turning sharp curves. The frame is strong wrought-iron, securely rivetted to the boiler for carrying the crank shaft and intermediate wheel shaft. The travelling wheels are of wrought-iron of extra width and of ample strength, and are provided with proper appliances for travelling on hard or soft ground. The boilers are of great strength and large capacity, with proportionate area of cylinder : the latter are steam jacketted and are constructed with the working barrel cast separately of extra hard metal to promote durability, and the engines throughout will be found of ample strength, efficient and economical in working. The tender carries a good supply of coals and water, and the engine is managed entirely from the footplate.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

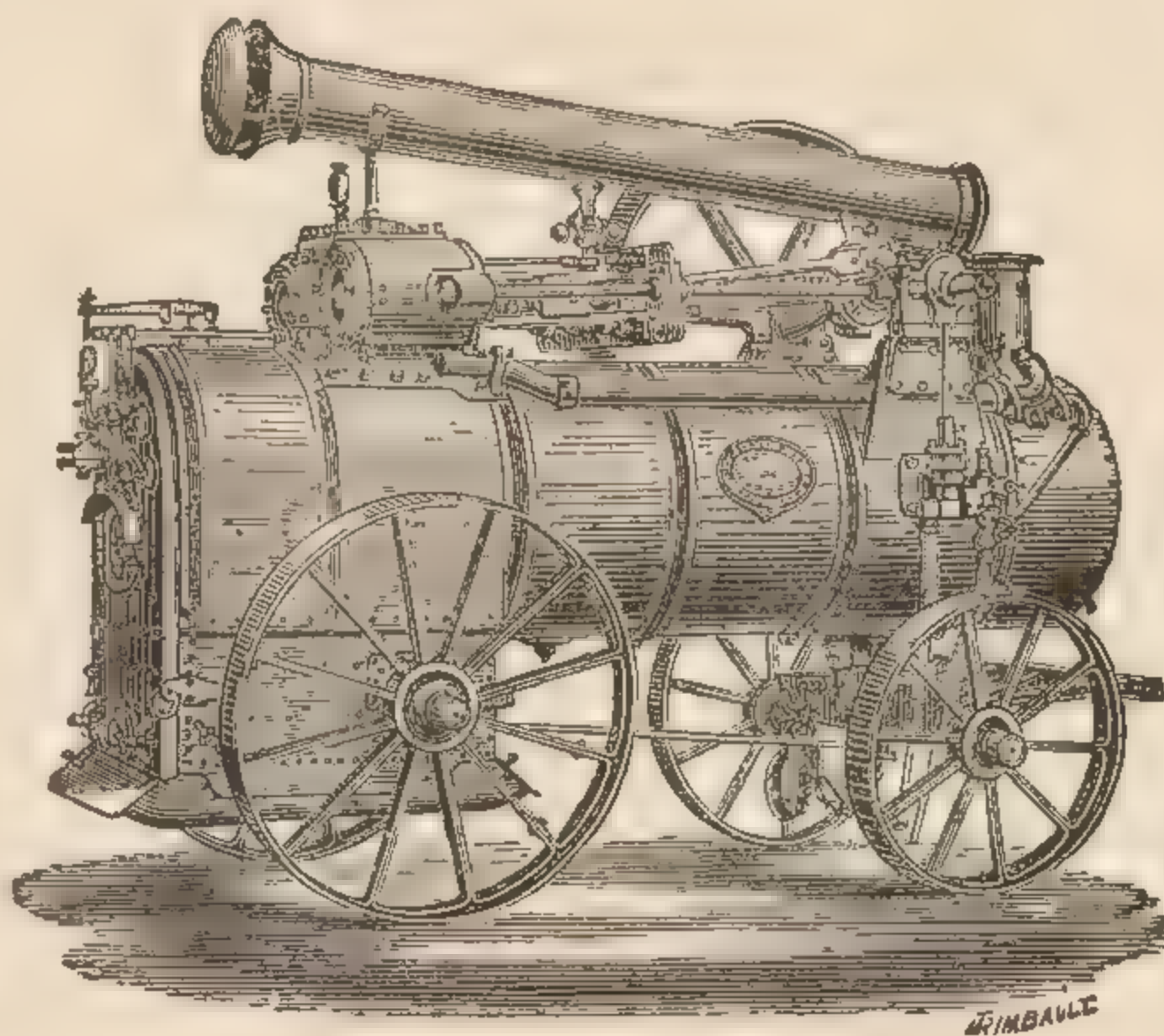
McLEAN BROTHERS, RIGG & CO.,

MARSHALL, SONS, & CO.'S

IMPROVED

PORTABLE STEAM ENGINES

With One or Two Cylinders.



Above Illustration represents an Engine with extra large Fire Box
for wood burning, &c.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

DESCRIPTION

OF

MARSHALL'S

IMPROVED.

PORTABLE STEAM ENGINES

1½ TO 12 NOMINAL HORSE POWER.



These Improved Portable Steam Engines, with Steam Jacketted Cylinders and Patent Variable Expansion Apparatus, Feed Water-heater, Steam Draught Jet, and Colonial Fire-box, are constructed of the best material with first-class workmanship throughout, being equal in finish to the best locomotive work, and are applicable for driving Threshing Machines, Grinding and Crushing Mills, Brickmaking Machines, Mortar Mills, Centrifugal and other Pumps, Circular Saws, and all Wood-working Machines, and for the general purposes of Contractors and Builders, and for Steam Cultivation, &c. They are of very large proportions, with ample strength and heating surface in the boilers; are unsurpassed for efficiency, economy, and durability in working. They are mounted on wrought iron under-gear and travelling wheels, which, for hot climates specially, are most advantageous. They embody the greatest possible strength of construction, and will be found practically indestructible.

The above are always in Stock.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

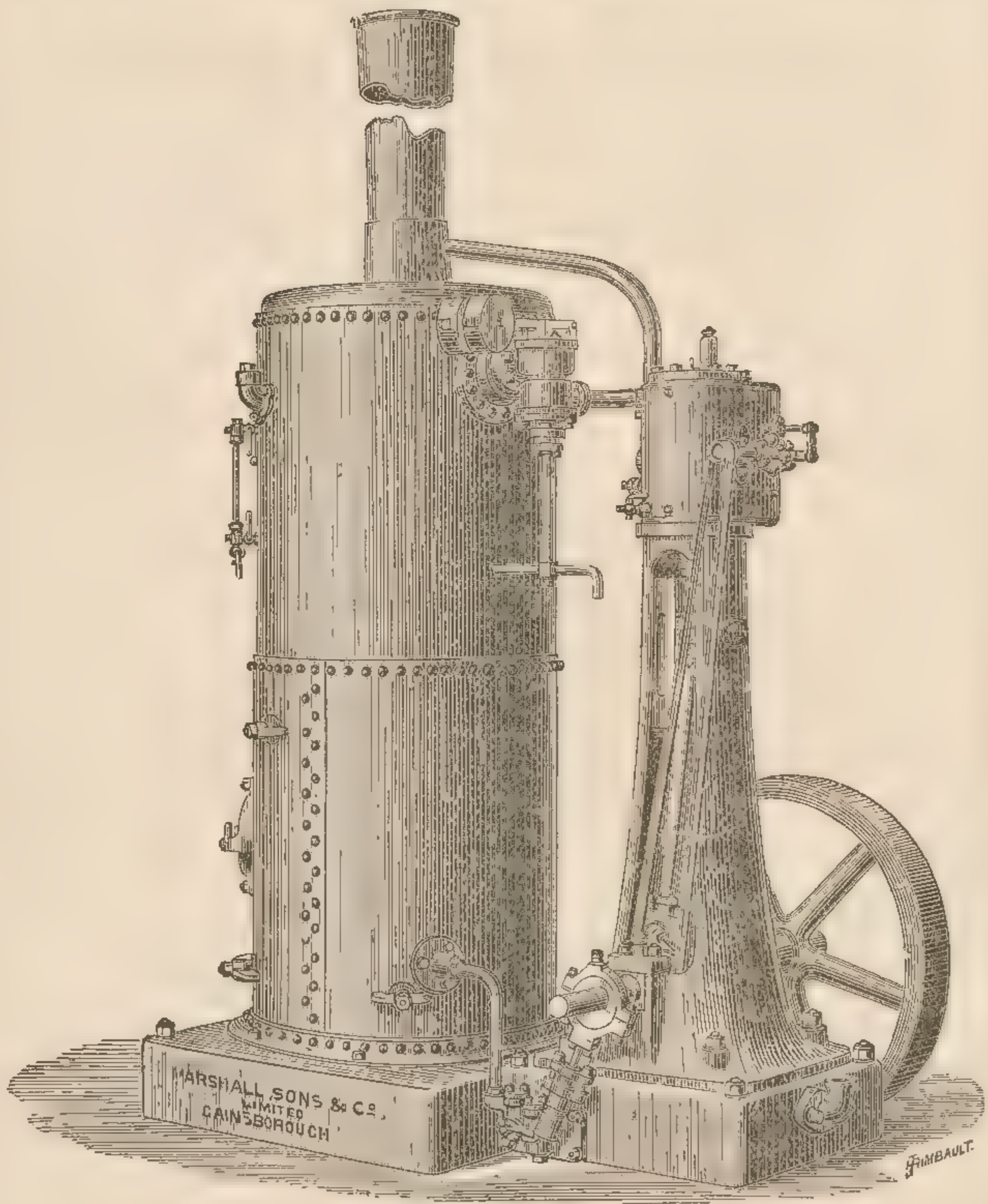
NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

MARSHALL'S

IMPROVED VERTICAL

STEAM ENGINES & BOILERS



(Either Stationary or Portable).

ADELAIDE.

This Illustration represents one of

Messrs. Marshall, Sons, & Co.'s

IMPROVED

VERTICAL STEAM ENGINES

WITH

INDEPENDENT VERTICAL BOILER,

fitted with Force Pump, Feed Water Heater, and Patent Variable Expansion Apparatus: the whole mounted, complete, on a strong cast-iron Tank Base. These Engines will be found to give better results from an economical point of view than most other makers', the cylinders being steam-jacketted and the expansion adjustable to the amount of power required, their large heating surfaces reducing to a minimum the consumption of fuel. They are very large for their respective nominal horse-powers, as will be seen from the sizes of the cylinders; the boilers are of corresponding capacity with the cylinders; and the Engines will be found fully ONE HORSE-POWER LARGER than those of some other makes.

The smaller sizes of these Engines up to five horse-power are made PORTABLE by mounting same on four low travelling wheels, with locking gear and shafts for draught; they can thus be readily removed.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

MARSHALL, SONS, & CO.'S

IMPROVED PORTABLE

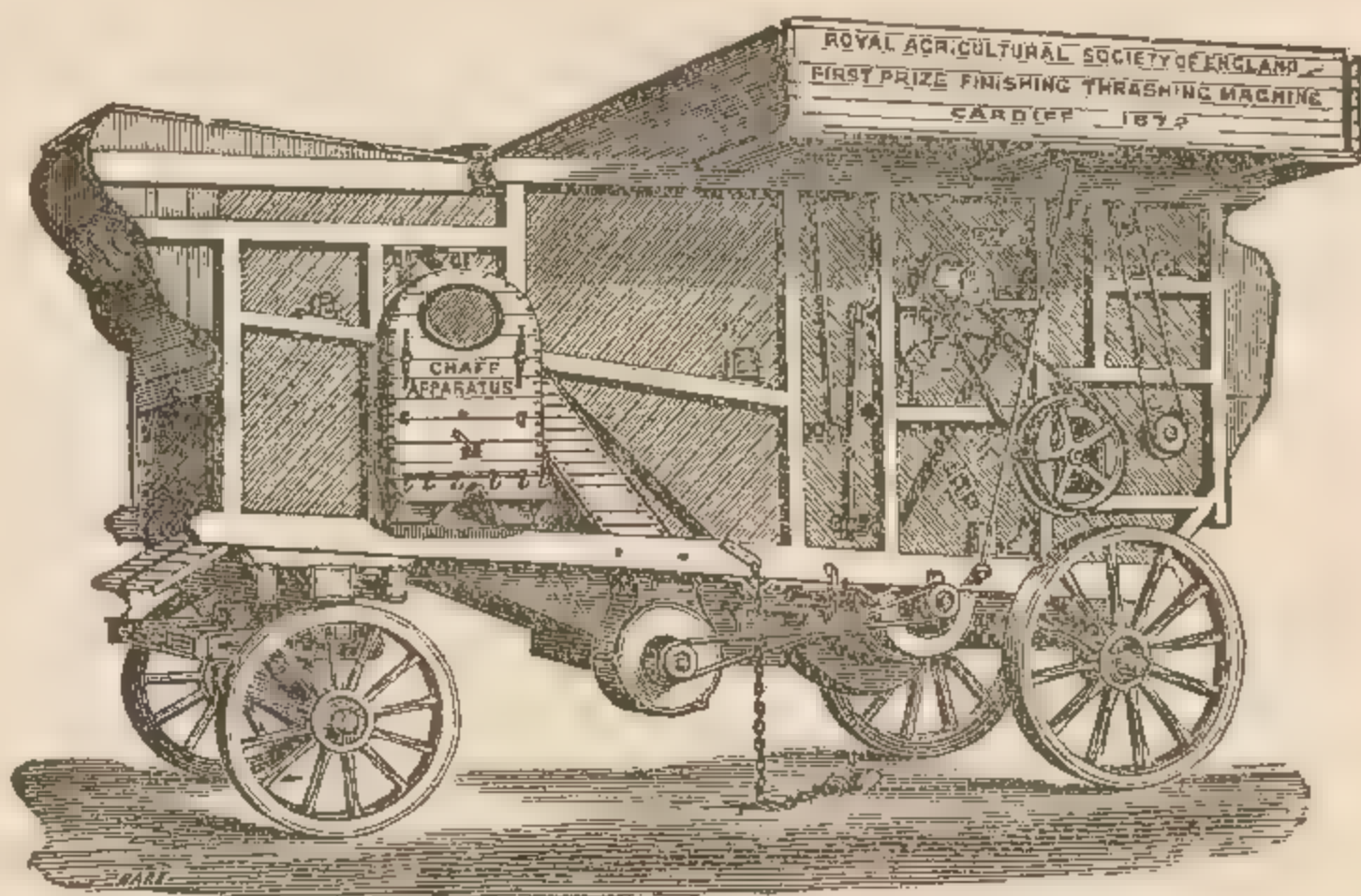
Steam Thrashing & Finishing Machine

AWARDED GOLD MEDALS

At the Paris Universal Exhibitions, 1867 and 1878, and

THE ONLY FIRST DEGREE OF MERIT

Sydney International Exhibition, 1880.



Medal for Progress, Vienna Universal Exhibition, 1873.

The First Prize of £40 at the Royal Agricultural Society's Latest Trials, Cardiff, July, 1872.

Special Gold Medal, Gothenburg, 1871.

Prize at the Triennial Trials of the Royal Agricultural Society of England, Bury St. Edmunds, 1867.

First Prize of £50, Great Yorkshire Show, Doncaster.

With numerous other First Prizes, Medals, &c.

The above Engraving represents one of their Prize Steam Thrashing Machines, adapted for preparing the Grain for Market at one operation.

ADELAIDE.

SYDNEY,

MELBOURNE.

LONDON.

NEW YORK.

The foregoing Engraving represents

MARSHALL'S IMPROVED
Portable Steam Thrashing Machines

Their Machines have a high reputation throughout England, the Continent, and the Colonies.

All the working parts, including the elevators and other portions of the mechanism are within the frame, thus protected from the weather and derangement in travelling, yet they are as readily accessible for examination and adjustment as if fixed outside. The straw and chaff being delivered at one end of the machine away from the engine, and the finished corn deposited into sacks at opposite end, entirely clear of the dust and dirt. The superior sample of corn they produce by means of the Improved Corn Cleaner, the grain being delivered in that bright uniform condition which gives it the highest market value.

These Machines gained the Highest Award at the Melbourne International Exhibition, 1880-81; also, Two Gold Medals for Portable Engines and Thrashing Machines from the Victorian Agricultural Society.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

THE McCORMICK

NEW STEEL

Harvester and Binder

WITH SQUARE STEEL TUBE FRAME.



Universally acknowledged to be "THE BEST IN THE
WORLD."

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

THE McCORMICK

IMPROVED

New Steel Harvester and Binder.



The improvements are so numerous and so important in the McCormick Harvester and Binder for the coming season that we find it difficult to condense a description of them in reasonable bounds.

THE MAIN FRAME is now made of two-inch square steel tube, a form that secures the greatest strength from a given amount of metal.

THE GEAR FRAME is not on the same plane with the main frame, as most of the competing machines are built, but is cushioned up about six inches higher, thus elevating the gearing out of the dirt and loose straws so liable to be picked up when the gearing lies low.

THE MAIN WHEEL has metal spokes cast solid into the hub. The outer end of the spoke is provided with an adjusting nut with a large flange bearing against the rim of the wheel. It is easy to get at, and can be tightened quickly with an ordinary wrench.

THE STEEL SWAY BAR on the main frame between the platform and main wheel working on a centre pivot, accurately balanced in all its motions; it is driven by a steel pitman with adjustable brass boxes and connected to a steel crank pin.

NEW RAISING AND LOWERING ARRANGEMENT whereby the machine can be set to any height by simply turning a crank, which is always in place, convenient and ready for use in its operation. This is a feature that will be much appreciated.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

THE GRAIN WHEEL can be raised or lowered by a lever with pawl and ratchet movement, and when set to any given height the lever can be dropped out of the way.

THE DIVIDER or grain wheel side of the platform is made of square steel tube in one continuous piece, from rear of the platform to the point of the divider, giving it great strength combined with lightness.

THE REEL is acknowledged to be the most efficient and easiest to handle in the worst lodged or tangled grain. It has the longest bearings making it run light, steady, and without any tendency to spring in any possible way.

NEW BINDER. By the adoption of this Binder two gear wheels and sixteen other pieces have been dispensed with, thus making the binder considerably lighter than heretofore. It can be instantly set to make any of four different sizes of bundles, and in making these changes it does not disarrange any other part of the mechanism or involve adjustment of other parts, so common in other machines.

Steel and Iron have been substituted for Wood in every part of the machine where it can be done to advantage.

The McCormick is not only the neatest but the lightest draught machine in the market.

MEASURING CORN OR GRAIN IN THE BIN.

RULE.—Remove the decimal point one place to the left in the number of cubic feet, and multiply by eight, adding $4\frac{1}{2}$ bushels to every thousand, because $\frac{8}{10}$ of the number of cubic feet is nearly the number of bushels. To measure corn on the ear, remove the decimal point one place to the left, divide by two and multiply by nine, thus in a crib of 3,200 cubic feet how many bushels?

Solution—2) 320.0

$$160 \times 9 = 1440.$$

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

McCORMICK

LIGHT "DAISY"

SELF-RAKE REAPER



This is a new, light, cheap, and effective side-delivery Sheaffer, though abundantly strong and efficient, and gets through its work with ease under all circumstances.

Both ends of the platform can be raised or lowered by a lever, while another lever tilts the cutting edge and platform to any angle required in picking up lodged or fallen grain, and these changes can be made while the driver is in his seat, and while the machine is in motion. There is no cog gearing in the main wheel to accumulate dirt and straw and provoke choking.

Its rakes have been improved, and the tripping devices made so simple that a child can understand them, while the operator can size the bundles to suit the grain. This machine is well named the "Daisy," for it is a light, neat, handy little reaper.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

THE McCORMICK IRON MOWER

SYDNEY,

MELBOURNE,



LONDON,

NEW YORK,

**The Best and Most Reliable
Machine made.**

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

THE

MCCORMICK MOWER

Is a Front-Cut Machine, having its gearing completely encased from dirt, and yet is easily accessible to all its parts. Its driving wheels are high, giving great power to the cutter, and making it very easy of draught. The Pitman Rod is kept in strict line with the cutting apparatus, so that any friction or binding is rendered impossible. The main connecting cross braces are made of steel instead of iron, thus giving GREATER STRENGTH AND LIGHTNESS. It can be suddenly stopped and as suddenly started again in the most difficult places in the paddock, without having to clear the guards or give speed to the knife.

TO FIND THE NUMBER OF TONS OF HAY IN OLD STACKS.

RULE.—Find the area of the base in square yards; then multiply the area of the base by half the altitude of the stack in yards, and divide the product by 15; the quotient will be the number of tons.

EXAMPLE.—How many tons of hay in a circular stack, whose diameter at the base is 8 yards, and height 9 yards?

SOLUTION.—50,265, area of base in square yards, $\times 4\frac{1}{2}$ half the altitude, $= 226,192 \div 15 = 15,079$ tons.

ADELAIDE.

SYDNEY,

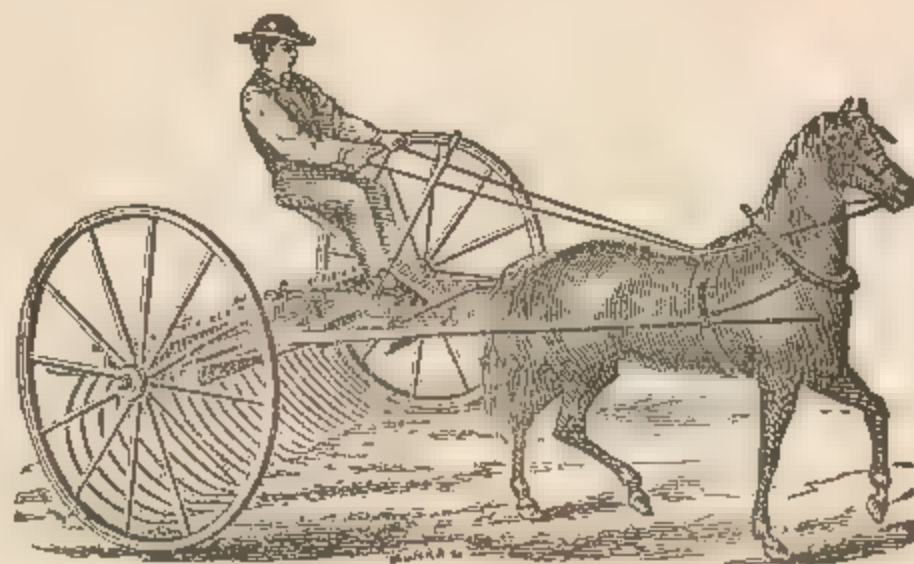
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

NEW TIGER HORSE RAKE



This RAKE is self-discharging by a slight pressure of the foot. A hand-lever is attached to each Rake, so that the operator can use either the foot or hand. The teeth can be adjusted to any position required, and will rake heavy as well as light crops. The teeth are made of extra quality of spring steel, and will stand the severest test and usage. They are so suspended that they have full liberty to fall into hollows or furrows, and to adapt themselves to the irregularities of the surface, and, being coupled, they rake clean, and are not liable to get loose or out of shape.

SQUARE CISTERNS.

RULE.—Multiply the length in inches by the width in inches, and that product by the depth in inches and divide the whole product by 231.

EXAMPLE.—How many gallons in a cistern 6 feet long, 3 feet wide and 4 feet deep?

SOLUTION.—72 inches in length \times 36 inches width, \times 48 inches depth = $124\,416 \div 231 = 538.59$ gallons.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK.

McLEAN BROTHERS, RIGG & CO.,

“THE COMING PLOUGH.”

The New Wheeled Moline

A Plough of the Times, made to suit the Demands of
the Times. Light in Weight and Light in Draught.

THE NEW MOLINE

Is pre-eminently

The Horse's Friend and the Ploughman's
Favourite.

Compactly and solidly put together, extremely simple, and built
for durability and strength, it has been constructed to meet the
requirements of all kinds of ploughing.

✎ It is made mainly of Steel. ✎

It has every advantage over a Hand Plough, in extremely light
draft, more uniform depth of furrow, and better work. It is
operated with a lever, and does not require any handling in
turning.

✚ Illustrated Price-Lists ✚

Gratis at our Warehouse, 41 and 43, Hindley Street, Adelaide.

ADELAIDE.

SYDNEY,

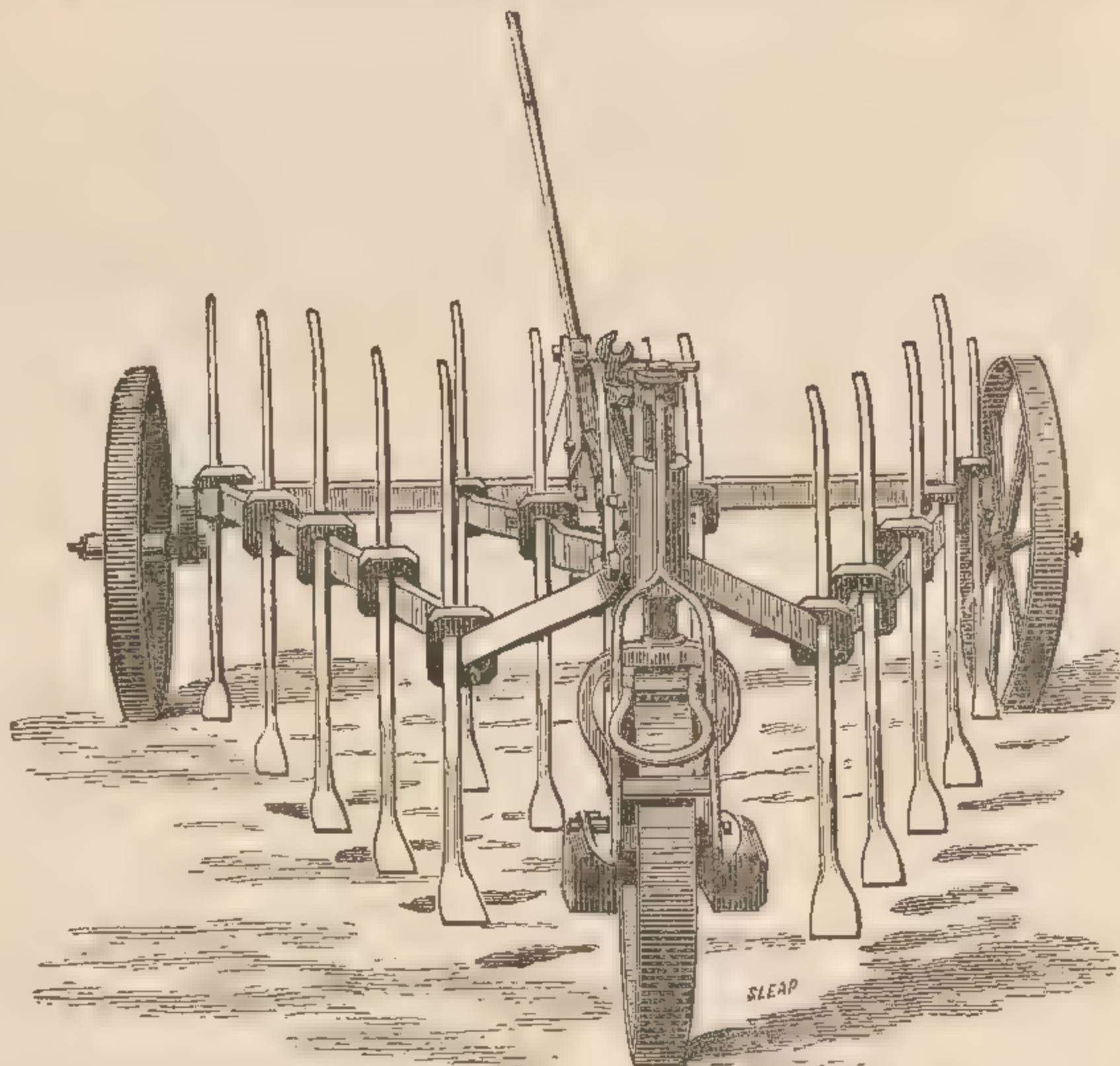
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

EDWARDS' SCARIFIERS.



With Single or Reversible-ended Tines.

The following are a few of the advantages gained by using this
Implement:—

- They save a lot of time and labour.
- They are light of draught.
- They are strong and durable.
- They can be set for any depth.
- They cleanse and pulverize the land.

CAPACITY OF CISTERNS.

FOR EACH TEN INCHES IN DEPTH

25 ft. in diameter holds	3059 gals.	7 ft. in diameter holds	239 gals.
20 " " "	1958 "	6½ " "	206 "
15 " " "	1101 "	6 " "	176 "
14 " " "	959 "	5 " "	122 "
13 " " "	827 "	4½ " "	99 "
12 " " "	705 "	4 " "	78 "
11 " " "	592 "	3 " "	44 "
10 " " "	489 "	2½ " "	30 "
9 " " "	396 "	2 " "	19 "
8 " " "	313 "		

ADELAIDE.

SYDNEY,

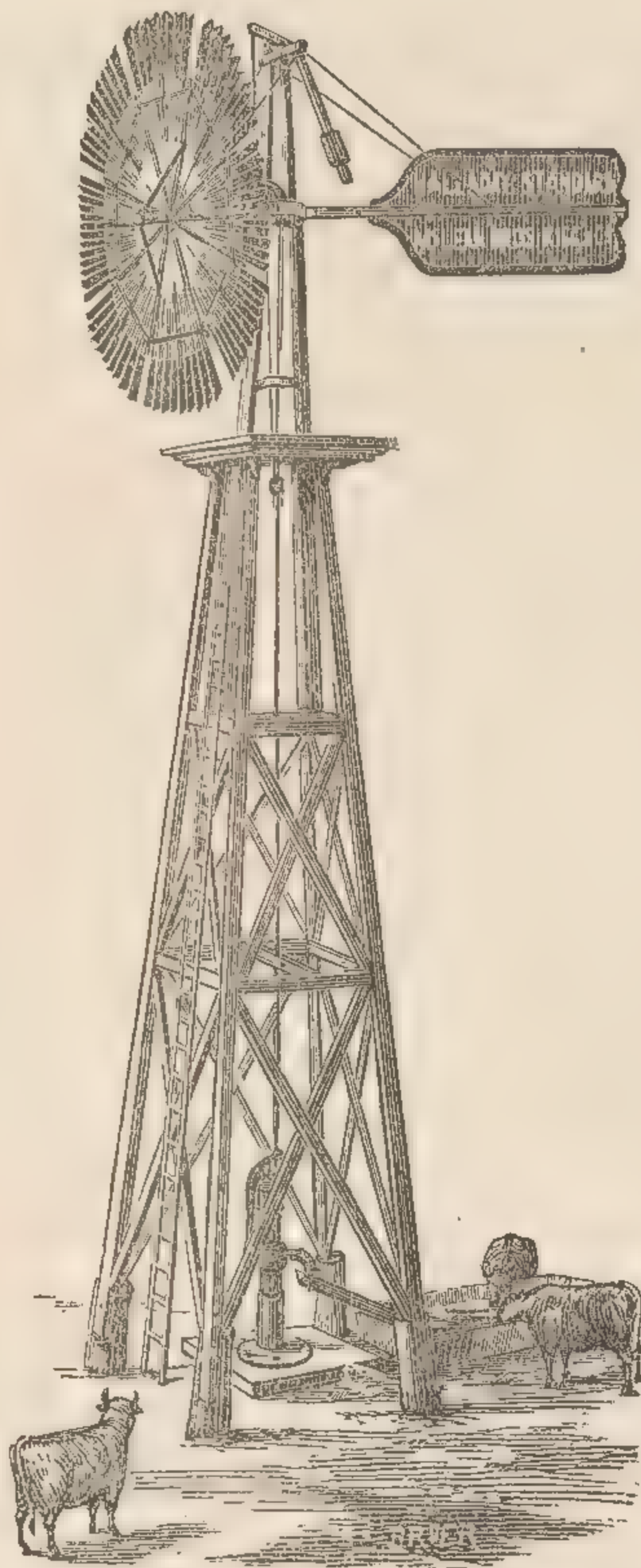
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

THE "HALLADAY" STANDARD WINDMILLS.



Perfectly Self-Regulating, and safe in the
heaviest gale that ever blew.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

THE "HALLADAY"

STANDARD

PUMPING & GEARED WINDMILLS.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Wind power has, until recently, been but little appreciated in Australia. Until the last few years the Windmill has been thrown into disuse, although in the early days many of the old-fashioned and dangerous kinds were used for grinding corn, pumping water, &c.

The principal reasons which caused them to be discarded were, that in a gale of wind it was almost impossible to avoid a wreck, whilst, if it did not break up, it was always dangerous to approach, in consequence of its rapid revolutions; another reason was that, through faults in construction, it required so strong a wind to work it, much of its power being absorbed in turning itself. Some of those defects exist in some of the modern mills now in use in the colonies, and several of those which are described as self-regulating and safe are really not so. Seldom do violent gales occur without accidents of some kind occurring to them. In describing the "HALLADAY" WINDMILL, we can positively assert that no instance has ever occurred of accident or injury happening to one of them in the strongest gale. Some hundreds of these Mills are now in use in South Australia alone, and the universal verdict is that it has no equal. We are pumping water at great depths, with pumps specially constructed for Windmill power.

Recently the "HALLADAY" GEARED MILLS have come into considerable use. We can supply these in three sizes, viz., 14, 16, and 22 feet, and where such work as chaff-cutting, corn-crushing, and pumping, or the ordinary work of a farm, usually accomplished with horse-works. The GEARED WINDMILL is found to be a cheap and most effective power, and one which we are convinced will come into almost universal use when its capabilities are better known.

We have sold some now in use which can be seen with the IXL Feed Mill, crushing in an ordinary wind 20 bushels of grain per hour. These Mills have all the good qualities possessed by the ordinary "HALLADAY" MILLS built for pumping only.

We are quite aware that there are many lower-priced Mills in the market, but for endurance, lightness of running (thereby giving a greater number of strokes to the pump per hour), there is nothing at present to compare with the "HALLADAY." We have instances where our Mills have run for four years without a shilling expenditure for repairs to either Mill or Pump, excepting an occasional coat of paint. We do not claim for the "HALLADAY" that it is the lowest in price *first cost*, but we do claim that it will last longer without repair, pump more water in light winds per hour, and is positively safe in the strongest gale that ever blew, and that in the long run it is the cheapest as it is acknowledged to be the best yet introduced. On the following pages we subjoin some testimonials testifying to their efficiency, and we can show a large number of others received from all parts of the colony.

ADELAIDE.

WINDMILL TESTIMONIALS.

Savannah, Georgia, 4th, October 17,

Messrs. McLean Bros., Rigg, & Co.

Dear Sirs,—The 12 ft. Halliday Standard Windmill you last March is working well. I thought I would give it before saying anything about it, which I have done, and am happy to testify to the genuineness of the article. My well is 60 ft. deep, and the Mill gives 400 gallons per hour with a fair breeze—that is, with a 5-in. stroke; the 7-in. would give a lot more water per hour, but would require a moderate wind to drive it, whereas little wind will drive the 5-in. stroke. I water 50 head of horses and cattle every day with the 5-in., and have only one 400-gallon tank to reserve the water, and have never left the Mill open at night, and never have been without water; yet it takes so little wind to work it that I have no difficulty in keeping the tank full. The Mill is all that I could desire, and I would not be without one if I had to pay double as much for one. It can be regulated by the lever to go as slow as you like, no matter how hard the wind blows, so that there is little danger of anything breaking if it is attended to. I can recommend the Halladay Standard Mill to anyone as a good Mill, and will answer their purpose well when there is a lot of stock to water.

I remain, dear Sirs, yours truly,

GEORGE CRAWFORD.

N.B.—You can make any use of this that you may think proper.—G. C.

Springfield, Mt. Crawford, Feb. 26, 1884.

Messrs. McLean Bros., Rigg, & Co.

Dear Sirs, The Standard Halladay Windmills you supplied to the Strangways Springs Station have exceeded your representations and those of the maker as to power, and are quite up to them in other respects. One of them raised 2,000 gallons of water per hour to height of 140 feet in an ordinarily strong wind, working a double-action 4-in. pump. When properly mounted and regulated (in doing which no difficulty was found) the Mill is safe and self-regulating in the strongest wind, the only attention required being to oil it.

Yours truly,

JOHN WARREN.

Koorunga, March 2, 1883.

Messrs. McLean Bros., Rigg, & Co., Adelaide.

Dear Sirs—It is now three months since I erected a Halladay Windmill, and it affords me pleasure in testifying to the thorough way in which it works. My well is 35 ft. deep, and the Windmill will force water 35 ft. above the surface. I have no doubt it will force it further, but I have only tested it this much. It will pump 600 gallons of water per hour easily, and it is astonishing the amount of labour it saves. I think anyone who has water at a reasonable depth would never regret investing in a Halladay Windmill, as, with a reservoir attached, they would have a constant supply of water. A child of six years of age can throw the Windmill in or out of gear.

I am, dear Sirs, yours truly,

JOHN LEWIS.

ADELAIDE.

SYDNEY.

MELBOURNE.

LONDON.

NEW YORK.

McLEAN BROS. RIGG & CO.,

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Perth, Stirling West, December 2, 1882.

Messrs. McLean Bros., Rigg, & Co., Adelaide.

Dear Sirs,—I am much pleased with the 10-ft. Halladay Windmill I purchased from you. It more than answers my expectations and exceeds your representations in regard to simplicity, as well as efficiency. It works well in a light breeze, easily raising the 2-in. column of water; but in the strongest gales we get here it simply stops working, and is quite safe. I require another of the same size for a different depth of well, and will give you instructions in a few days, and am

Dear Sirs, yours truly,

W. R. CAVE.

Payneham, February 21, 1884.

Messrs. McLean Bros., Rigg, & Co.

Dear Sirs,—In answer to your note as to how my Mill is working, I have much pleasure in bearing testimony to its many excellent qualities. You guaranteed me about 300 gallons per hour; but, notwithstanding my tanks being at an elevation of 65 ft. from the bottom of the well and 170 ft. distance from the well, I obtain from 500 to 600 gallons per hour in an ordinary wind. I would not like to be without my Mill for double its cost, as it answers every purpose and more than fulfils my expectations.

Yours faithfully,

B. JOHNS.

Laura, March 7, 1883.

Messrs. McLean Bros., Rigg, & Co., Adelaide.

Dear Sirs—In reply to your enquiries *re* Halladay Windmill we had from you in November, 1881, we have much pleasure in saying that it has given every satisfaction, and it is all that is claimed to be, a thoroughly good and perfectly reliable Mill. It is the only one we have had to do with or seen during an experience of over twenty years among windmills, that is completely self-acting, as it matters not what wind or what work it has to do with, it will not go above a certain speed, but, when the wind is too strong, eases itself and returns to the wind as it lulls. We have every confidence in recommending it to anyone who requires a good reliable Mill.

We are, dear Sirs, yours, &c.,

THOS. FORSAITH & CO.,

Machinists, &c., Laura.

Nalang, March 10, 1883.

Messrs. McLean Bros., Rigg, & Co., Adelaide.

Dear Sirs,—I have had the two Halladay Mills (12 ft), that I bought from you at work for some time, and am satisfied with them. They will water from 4,000 to 5,000 sheep each, if not more. Mine are both lifting water 70 feet. . . . I intend putting up more of them before next summer.

Yours faithfully,

D. SIMPSON.

Orroroo, September 10, 1883.

Messrs. McLean, Bros., Rigg, & Co.

Sirs,—The 10 ft. Mill I purchased of you has now been at work for about three months. I am much pleased with it. It pumps quite as much water as I require, and in the stormy winds we get here it is quite safe, and simply stops working until the wind blows lighter. You have not in any way overstated the good qualities it possesses.

Yours truly,

C. C. BRICE.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

Capeedee, August 26, 1882.

Messrs. McLean Bros., Rigg, & Co., Adelaide.

Dear Sirs,—The Halladay Windmill I purchased from you has proved a perfect success. It has now been working for nearly ten months, during which time it has pumped water for over three thousand (3,000) sheep, and would have pumped enough for twenty thousand (20,000) and about forty (40) horses. It works with the slightest wind, and withstands the most terrific storms. I have no hesitation in recommending these mills as the best for the country, both for usefulness and simplicity.

Respectfully yours,

T. HOPE MURRAY.

“The Rocks,” near Border Town, October 15th, 1884.

Messrs. McLean Bros., Rigg, & Co., Adelaide.

Gentlemen,—In answer to numerous enquiries as to the working and lasting powers of the Halladay Standard Windmill, I beg to state that the 12-ft. Mill I bought of you in May, 1881, was erected the following spring, and has been in constant work ever since. It supplies my house, horses, and cows the whole year, and about 1,200 sheep in summer. It has now been at work for three years, and has not cost me a shilling for repairs to either Mill or Pump. I cannot speak too highly of it.

I am, Gentlemen, yours faithfully,

C. W. SCRIVEN.

Vale of Heath Farm, Terowie, Feb. 22, 1884.

Messrs. Bleechmore Bros., Agents.

Gentlemen,—I have much pleasure in informing you that the Halladay Windmill (10 ft.) purchased from you in September last, has given me every satisfaction. I have watered 800 sheep and all farm stock daily without any hitch. The Mill has not worked more than three hours per day on the average. I have found her thoroughly self-regulating. The Mill has done everything you represented her to do, and I would not do without her on any consideration.

Yours truly,

G. K. JENKINS.



ADELAIDE.

MELBOURNE,

SYDNEY,

SIZES AND CAPACITIES OF WINDMILLS AT VARIOUS DEPTHS.

(The best way to understand the power of a Mill is by the amount of work it will do.)

DIAMETER OF MILL.	PUMPING 25 FEET		PUMPING 50 FEET.		PUMPING 100 FEET.		PUMPING 150 FEET.		PUMPING 200 FEET.	
	Size of Pump.	Gallons per Hour.	Size of Pump	Gallons per Hour.	Size of Pump.	Gallons per Hour.	Size of Pump.	Gallons per Hour.	Size of Pump.	Gallons per Hour.
10 feet	4 in.	600	3 in	300	3 in.	150	...	...	...	...
12 feet	5 in.	1,100	4 in.	550	3 in.	270	2½ in.	180	...	...
13 feet	5 in.	1,200	4 in.	600	3 in.	300	2½ in.	200	...	...
14 feet	6 in.	1,400	4½ in.	700	3½ in.	350	3 in.	230	...	...
16 feet	6 in.	1,800	5 in.	900	3½ in.	450	3 in.	300	3 in.	200
20 feet	6 in. double acting)	4,000	5 in. (double acting)	2,000	5 in.	1,000	4½ in.	650	4 in.	500

N.B.—The above calculations are made upon the basis of a 10-mile breeze, or a wind velocity of 15 feet per second. The effective horse-power is taken at ONE HALF the theoretical.

To obtain these results the Mills must be attached to the Pumps direct. It is safe to calculate on a good Windmill producing these results seven or eight hours daily, on an average, throughout the year. The maximum results possible are of course very much greater. The Mills are capable of pumping *four times* the quantities mentioned above.

Not only is the diameter of the Pump increased in proportion to the size of the Mill, but the length of stroke may also be increased at the same time.

Two or more Pumps can be operated by one Mill, according to the amount of water required, and limited only by the elevation to be overcome.

McLEAN BROTHERS, RIGG & CO..

ADELAIDE.

NEW YORK,

LONDON,

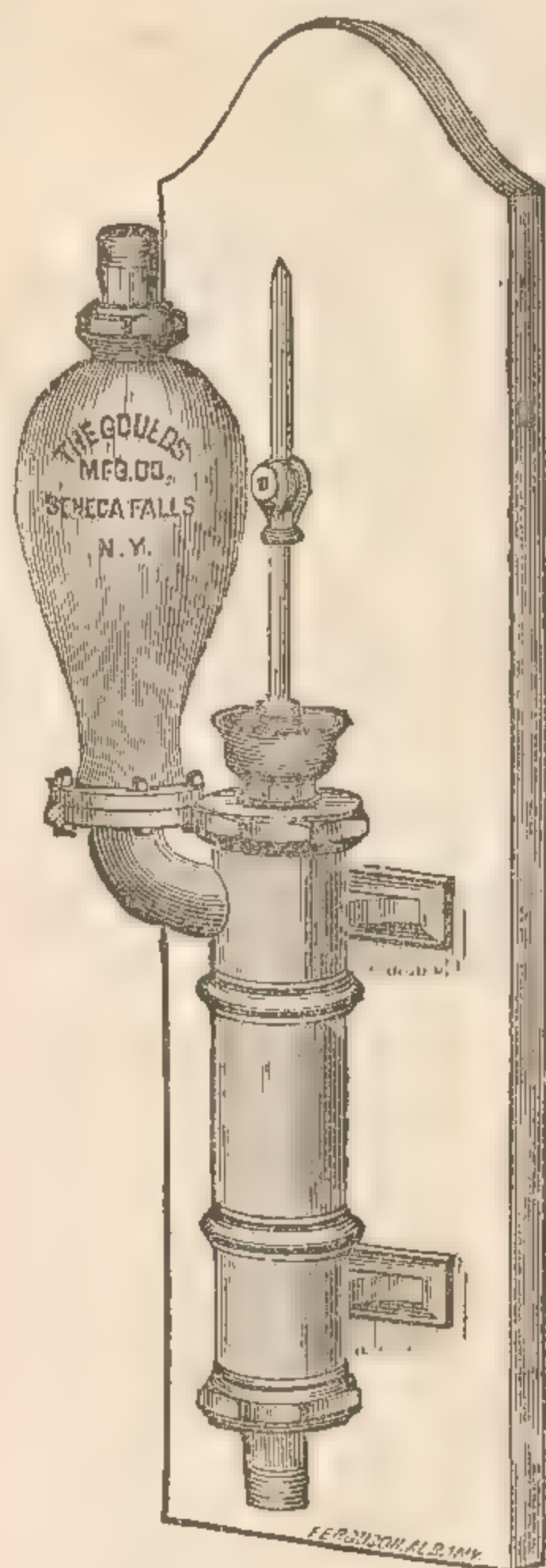
McLEAN BROTHERS, RIGG & CO.,

Force and Lift Pumps.

SINGLE-ACTING FORCE AND LIFT PUMP

Fitted with Air Chamber.

SUITABLE FOR WINDMILLS.

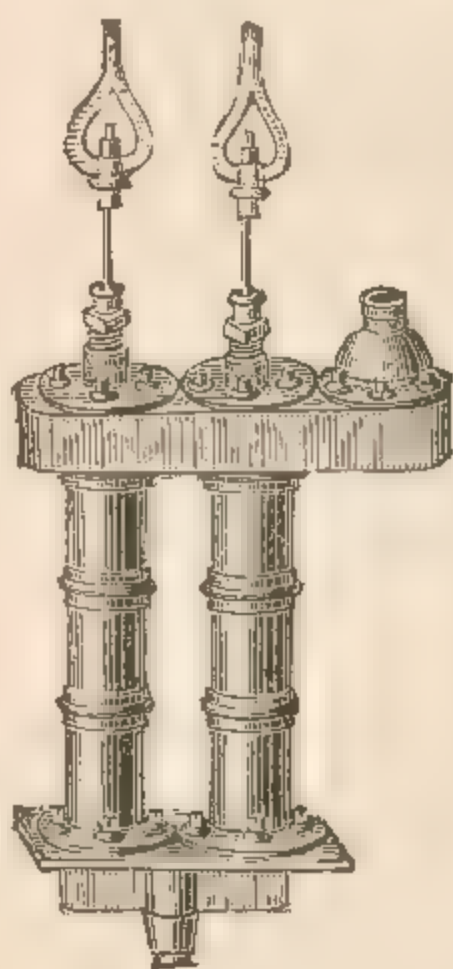


DOUBLE AND TREBLE-BARREL

PUMPS

By Various Makers.

Particulars on Application.



ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

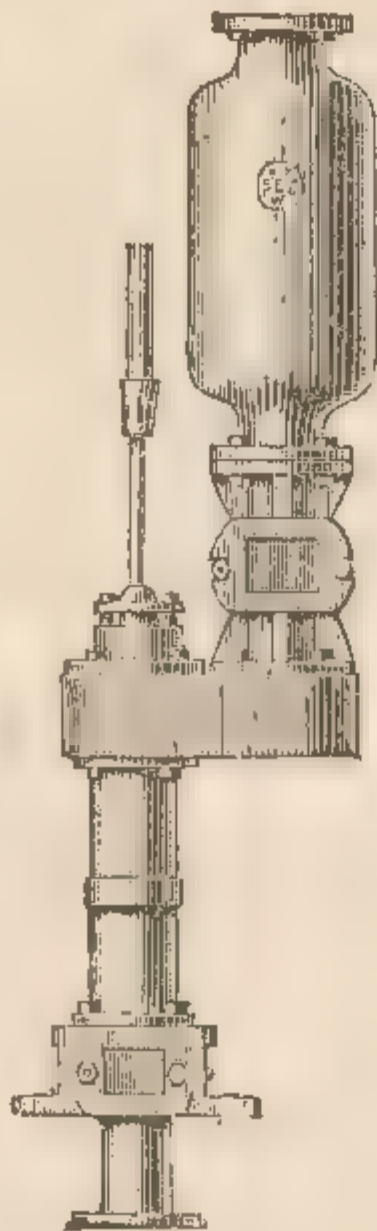
EVANS'

COPPER OR BRASS-LINED

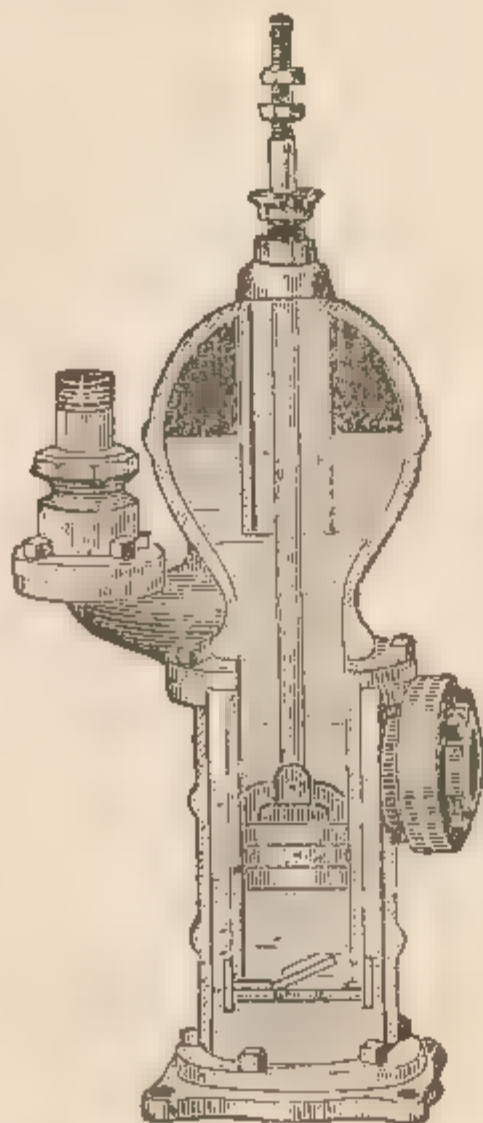
FORCE AND LIFT PUMPS

With Copper Air Chamber.

For Deep Wells.



These Pumps are strongly recommended for very deep wells, and are most substantially made and well fitted throughout. They are fitted with brass valve seats, brass spindles, separate cast-iron bends and check valves, and doors for giving easy access to the valves.



BRASS-LINED

Deep Well Force Pump

Fitted with Air Chamber.

ADELAIDE.

SYDNEY,

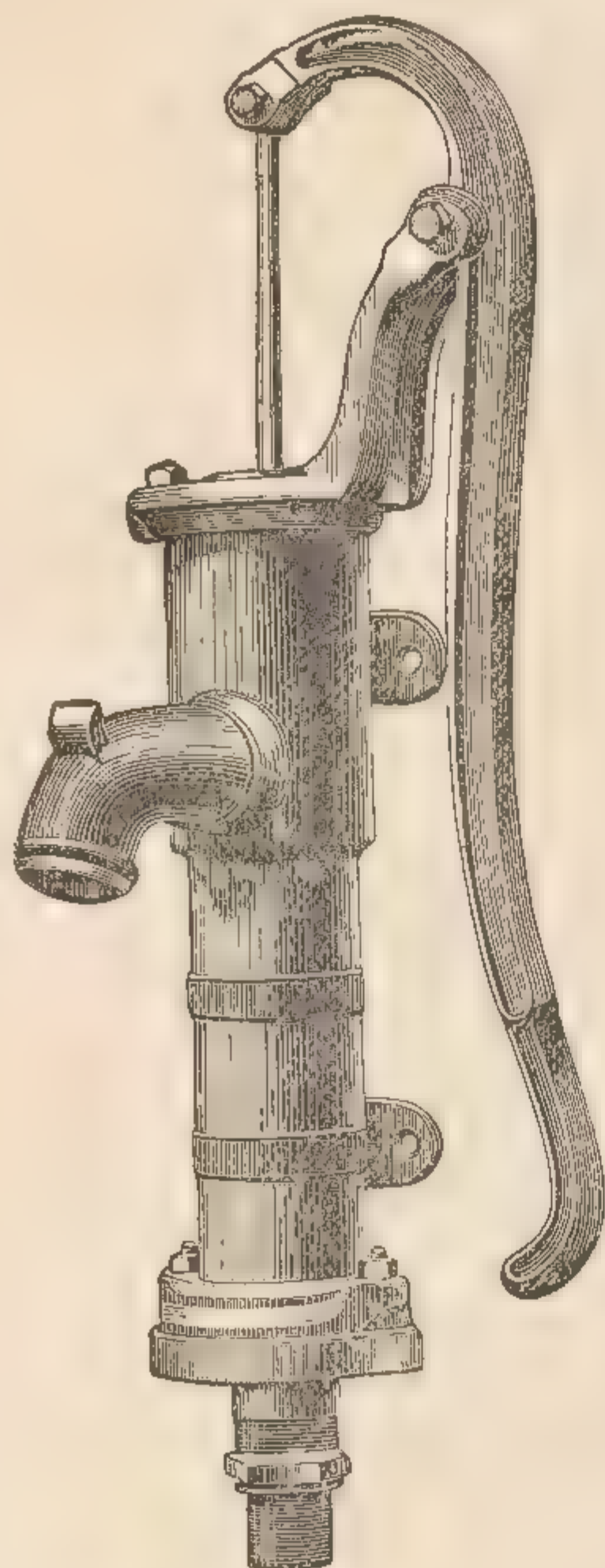
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

DOUGLAS PUMPS.

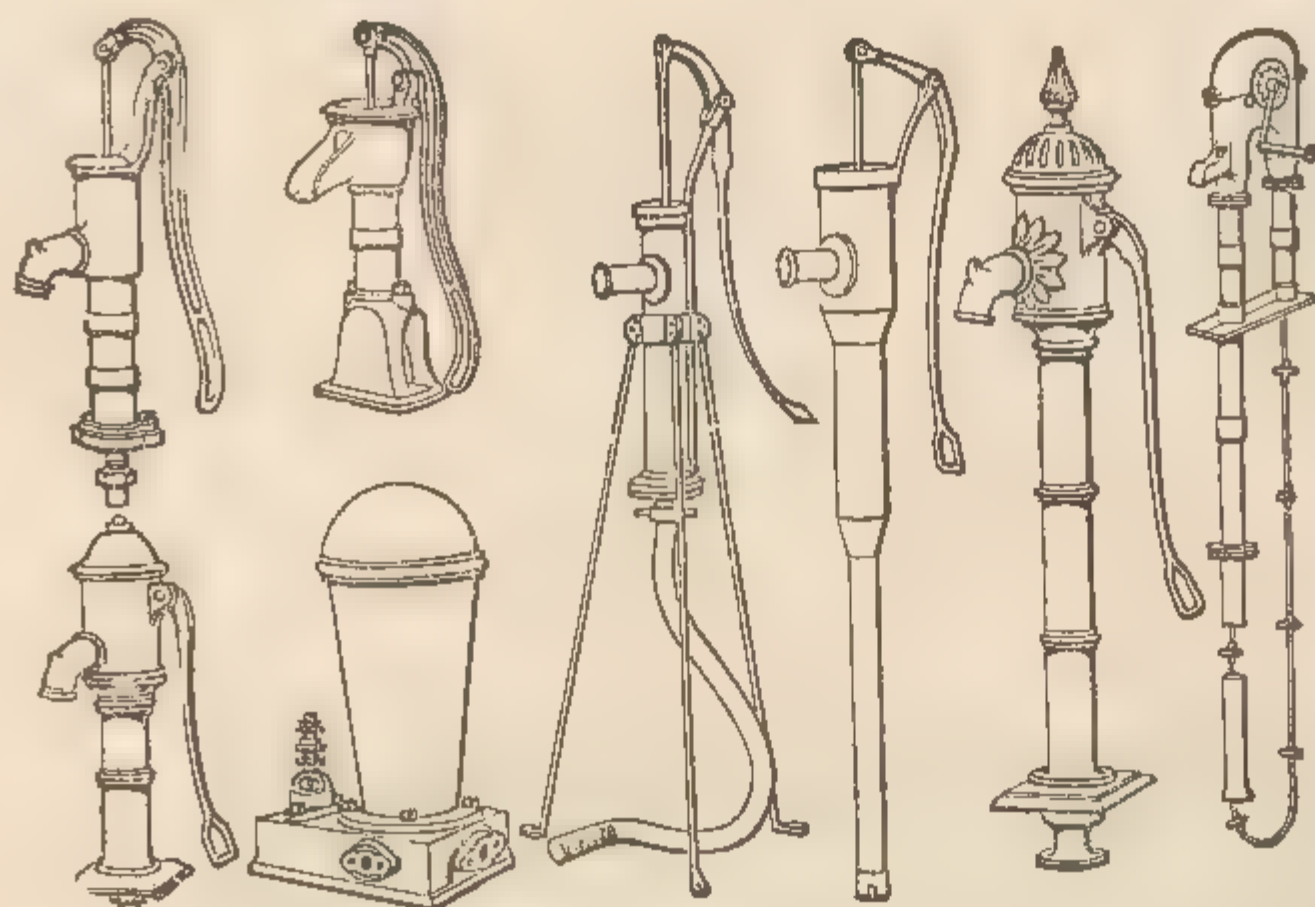


DOUGLAS LIFT PUMPS

ON BASE.

FOR HAND POWER ONLY.

No. 1—	$2\frac{1}{4}$ inch,	for 1 inch Pipe
No. 2—	$2\frac{1}{2}$	" $1\frac{1}{4}$ "
No. 3—	$2\frac{3}{4}$	" $1\frac{1}{4}$ "
No. 4—	3	" $1\frac{1}{2}$ "
No. 5—	$3\frac{1}{4}$	" $1\frac{1}{2}$ "
No. 6—	$3\frac{1}{2}$	" 2 "



PUMPS
OF
EVERY
DESCRIPTION
—
IMPROVED
CHAIN
Water-Lifters

A Pump will suck almost any distance, horizontally, provided the pipes and connections are perfectly air-tight.

ADELAIDE.

SYDNEY,

MELBOURNE,

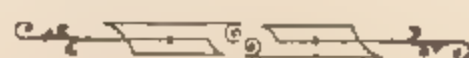
LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

EVANS'

Force & Lift Pumps



These Pumps are fitted with Brass
Spindles and Valves.

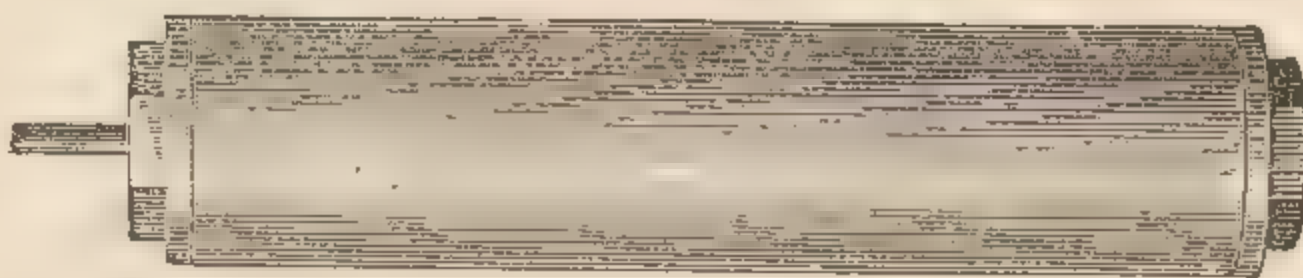
No. 4—	3 inch	for	1½ inch	Pipe
No. 5—	3¼	"	1½	"
No. 6—	3½	"	2	"
No. 8—	4	"	2	"

With Copper Air Chamber.

IRON AND BRASS CYLINDER PUMPS

(English and American),

WITH BOLTED OR SCREWED HEADS.



ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK.

NOTES ON PUMPS.



WE do not intend to describe all kinds of Pumps, nor to compare their merits, but only to draw attention to a few of the leading points by which a choice may be arrived at. The quantity of water required in a given time, and the height of discharge above water level given, the kind of force available, Manual, Animal, Steam or Wind Power, the special purpose of the Pump whether temporary or permanent, for raising large volumes to a small height, or moderate quantity at a greater elevation, the location of the Pump, the horizontal distance of discharge from well or stream, whether the water is fresh or mineralised.

We have given very special attention to this branch of our business and keep a full stock of English, American, and Colonial-made Pumps.

TON WEIGHT AND TON MEASURE.

A ton of hay or any other coarse bulky article usually sold by that measure is 20 gross hundreds, that is 2,240 lbs. But in many places it has become the custom to count only 2,000 lbs. for a ton. In freighting ships 42 cubic feet are allowed to a ton; in the measurement of timber 40 solid feet if round, and 50 if square, make a ton.

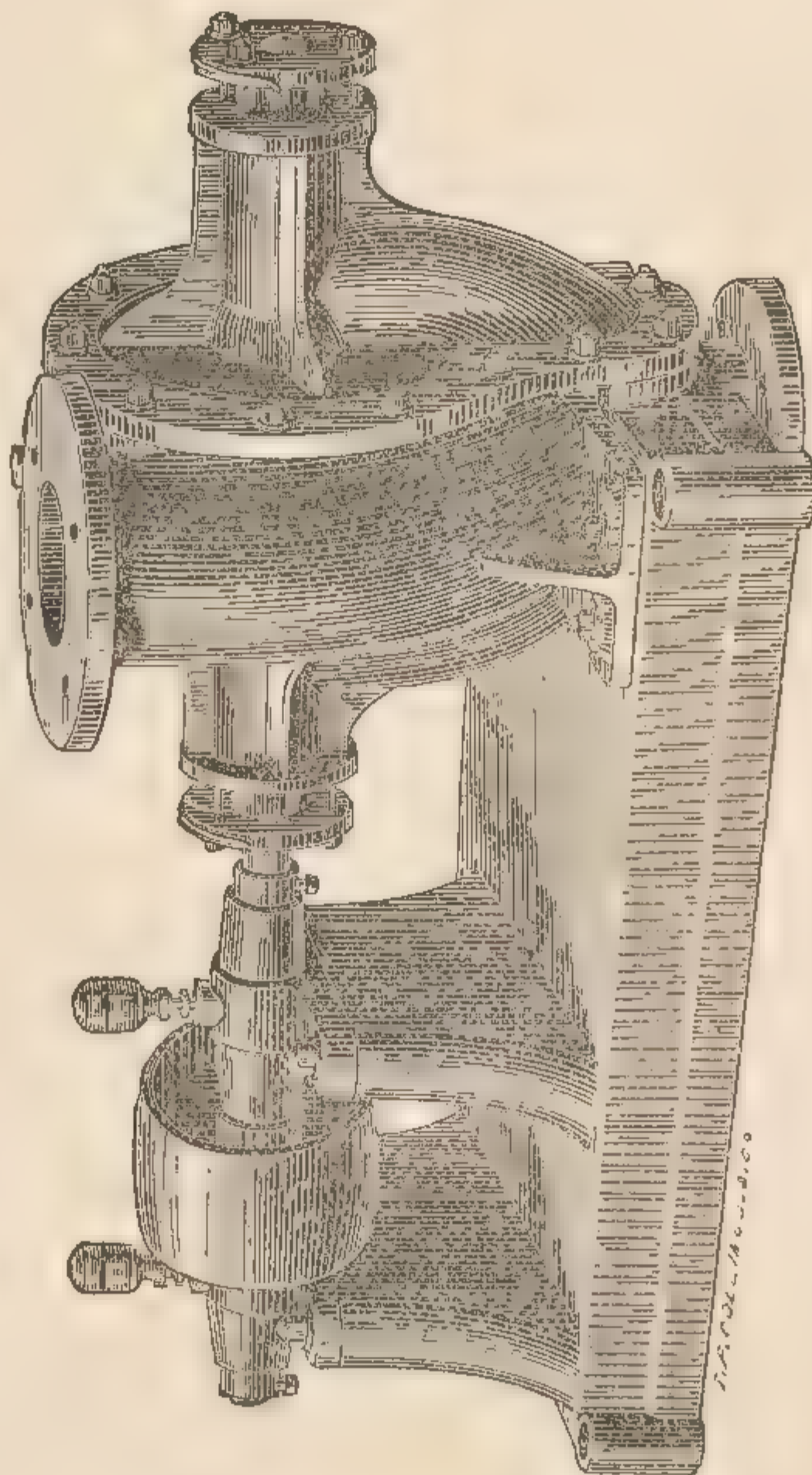
ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

C. L. HIGGINS

DOUBLE STANDARD

"Accessible" Centrifugal Pumps



SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

ADELAIDE.

SYDNEY,

SPEED AND POWER LIST.

日
月
星
辰
風
雨
雷
電

McLEAN BROTHERS, RIGG & CO.,

LIST IN FEET.																			
Diameter of Pipes.	Diameter of Flanges.	Approximate quantity of water raised in gallons per minute.	Driving Pulley.	10		20		30		40		50		60		70		80	
				Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.	Nominal H.P. required.	Revolutions per minute.
2	6½	50 to 75 gallons	diam width diam wid.h	1	983	1	1298	1	1538	1	1766	2	1796	2	2083	2	2232	3	2371
3	8	100 " 150 "	4 " 4 or 4 by 4	1	873	1	1153	2	1336	2	1570	3	1708	3	1852	4	1984	4	2108
4	9	200 " 300 "	6 " 5 " 5 " 4½	1	786	2	1038	3	1230	4	1413	6	1537	6	1666	8	1785	8	1897
5	10½	350 " 500 "	7½ " 6 " 6 " 6	2	715	4	944	6	1118	8	1285	12	1297	12	1515	14	1623	16	1725
6	12	500 " 750 "	9 " 6½ " 8 " 8	3	655	5	865	7	1025	9	1161	10	1281	14	1389	16	1488	18	1581
7	14	700 " 1050 "	10½ " 8 " 10 " 9	3	561	6	741	8	878	10	1009	13	1098	16	1190	18	1275	20	1355
8	15	1050 " 1575 "	12 " 9 " " " " "	4	491	8	649	11	769	15	888	18	898	22	1041	26	1116	30	1185
10	17	1500 " 2150 "	16 " 10 " 14 " 9	6	393	10	519	15	615	20	707	25	769	30	833	35	872	40	918
12	20	2000 " 3000 "	18 " 11 " 16 " 10	8	328	14	433	20	512	28	580	35	610	40	695	48	744	..	791
15	23	3500 " 5000 "	20 " 12 " 18 " 12	12	262	25	346	35	410	48	471	60	512	70	555	..	595	..	632
18	26½	5000 " 7500 "	14 " 14 " " " " "	17	218	35	288	50	342	..	387	..	427	..	463	..	476	..	527
21	30	7500 " 11250 "	30 " 16½ " " " " "	25	187	50	247	..	293	..	336	..	366	..	397	..	425	..	452
24	33	9000 " 15500 "	36 " 16 " " " " "	30	164	60	216	..	256	..	290	..	320	..	347	..	396	..	395

NEW YORK,

LONDON,

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

MESSRS. C. L. HETT,

Of Brigg, Lincolnshire, England, have for many years directed their special energies in the direction of simplifying and perfecting

THE

✻ CENTRIFUGAL PUMP ✻

and it is now claimed for them that they raise a greater quantity of water than Pumps of other construction at a given consumption of fuel and horse power applied, thereby saving considerable first cost in the purchase of a smaller engine than is usually employed. Accessibility to valves and all interior parts of Pump is given in the simplest manner by the removal of one side, which can be done and replaced in twenty minutes without even the trouble of removing the belt.

Two 6-in. Pumps were most successfully employed in saving the S.S. "Palmerston," wrecked off Port Lincoln February, 1887.

Several of them are doing splendid work at Mr. Fletcher's New Graving Dock, Port Adelaide.

A number of Pumps for irrigation purposes are now most successfully working, both on the Darling and Murray, which have been supplied by us.

At the Sewage Farm an 8-in. Pump, worked by a 4-h.p. Engine, is much exceeding the quantity of water guaranteed by us.

We are satisfied that a great future is in store for trade in this class of machinery, and we have taken great care to find out by most careful enquiry which was the most satisfactory in its working of the various kinds manufactured, with the result that in India, Egypt, China, and other irrigating countries we find that the HETT PUMP is almost universally adopted. Inspection of Stock invited.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

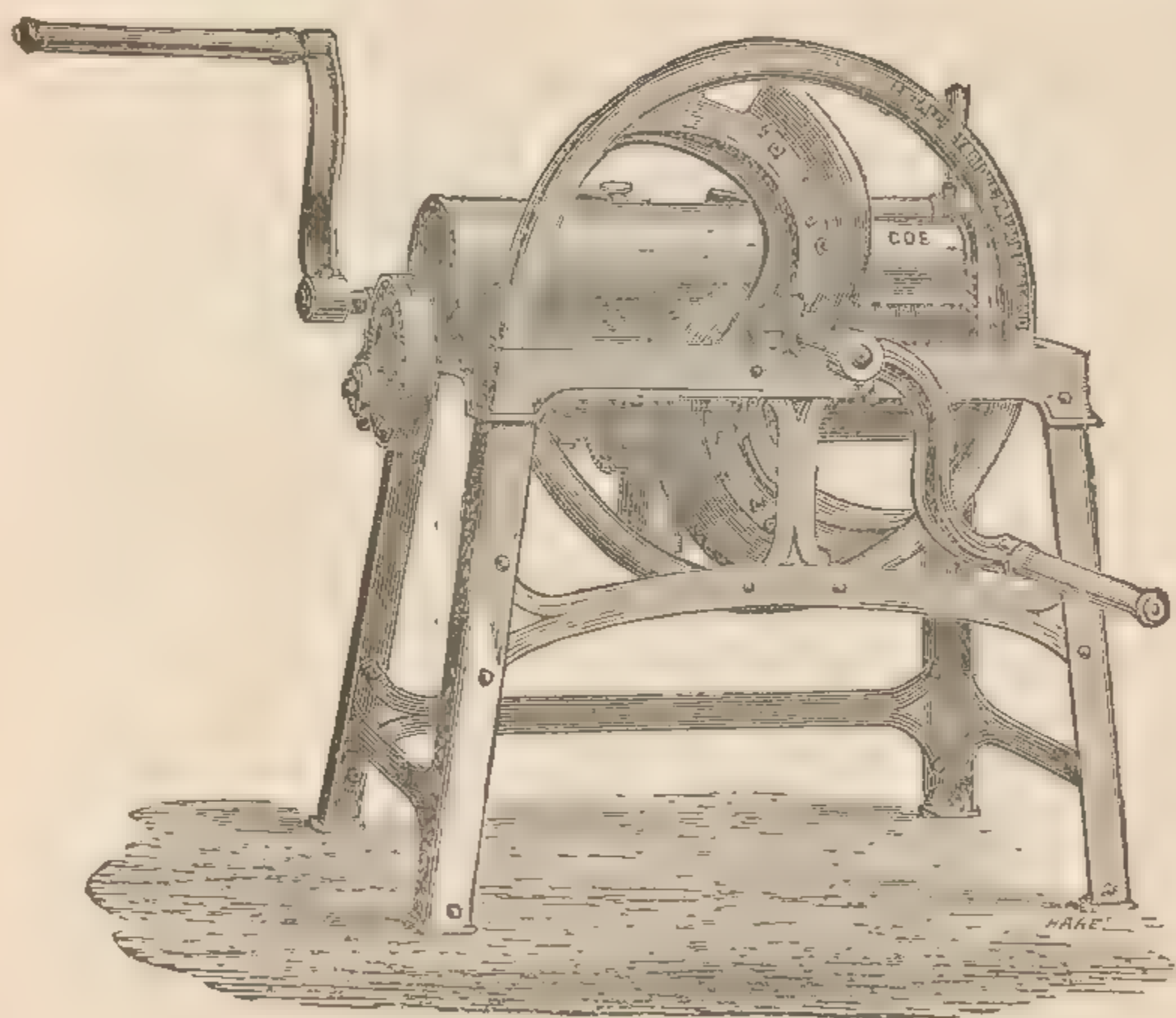
NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

BENTALL'S

C. D. E.

CHAFFCUTTER



Fitted with Rising Mouth, $9\frac{1}{4}$ -in. x $3\frac{1}{2}$ -in.

Cuts three lengths, viz., $\frac{1}{4}$ -in., $\frac{7}{16}$ -in., and $\frac{7}{8}$ -in.

This Machine is suitable for either hand or horse-power, and can be worked by one horse. It has a stopping and reversing motion, and the gearing is all covered.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

BENTALL'S

C. E. E.

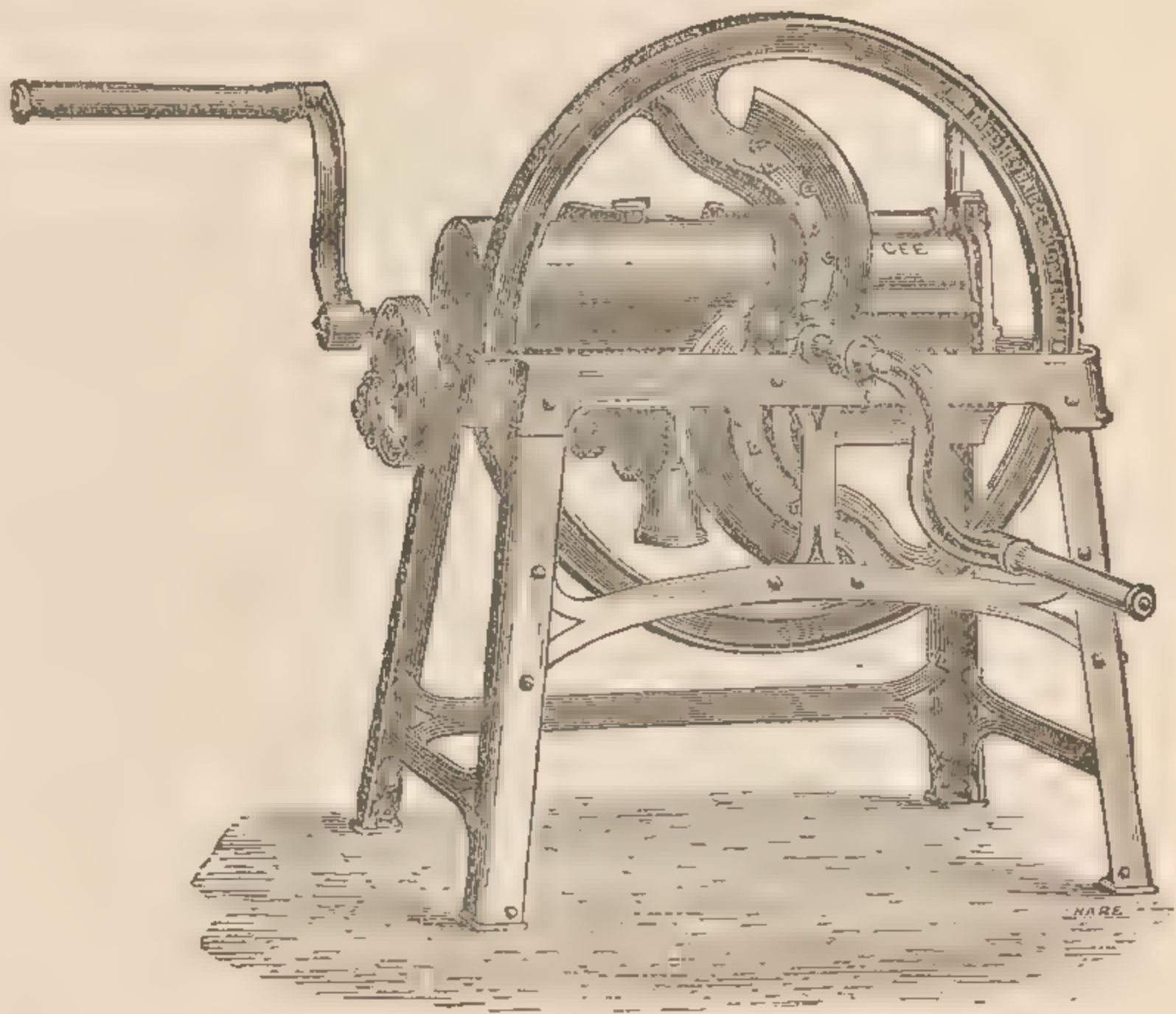
CHAFFCUTTER.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,



Fitted with Rising Mouthpiece, $9\frac{1}{4}$ -in. x 4-in.

Cuts three lengths, $\frac{1}{4}$ -in., $\frac{7}{16}$ -in., and $\frac{7}{8}$ -in.

This is the best and cheapest Machine manufactured, and can be strongly recommended for either hand or horse-power. It has a stopping and reversing motion, and is fitted with two handles. All the gearing is covered from dust, &c.

ADELAIDE.

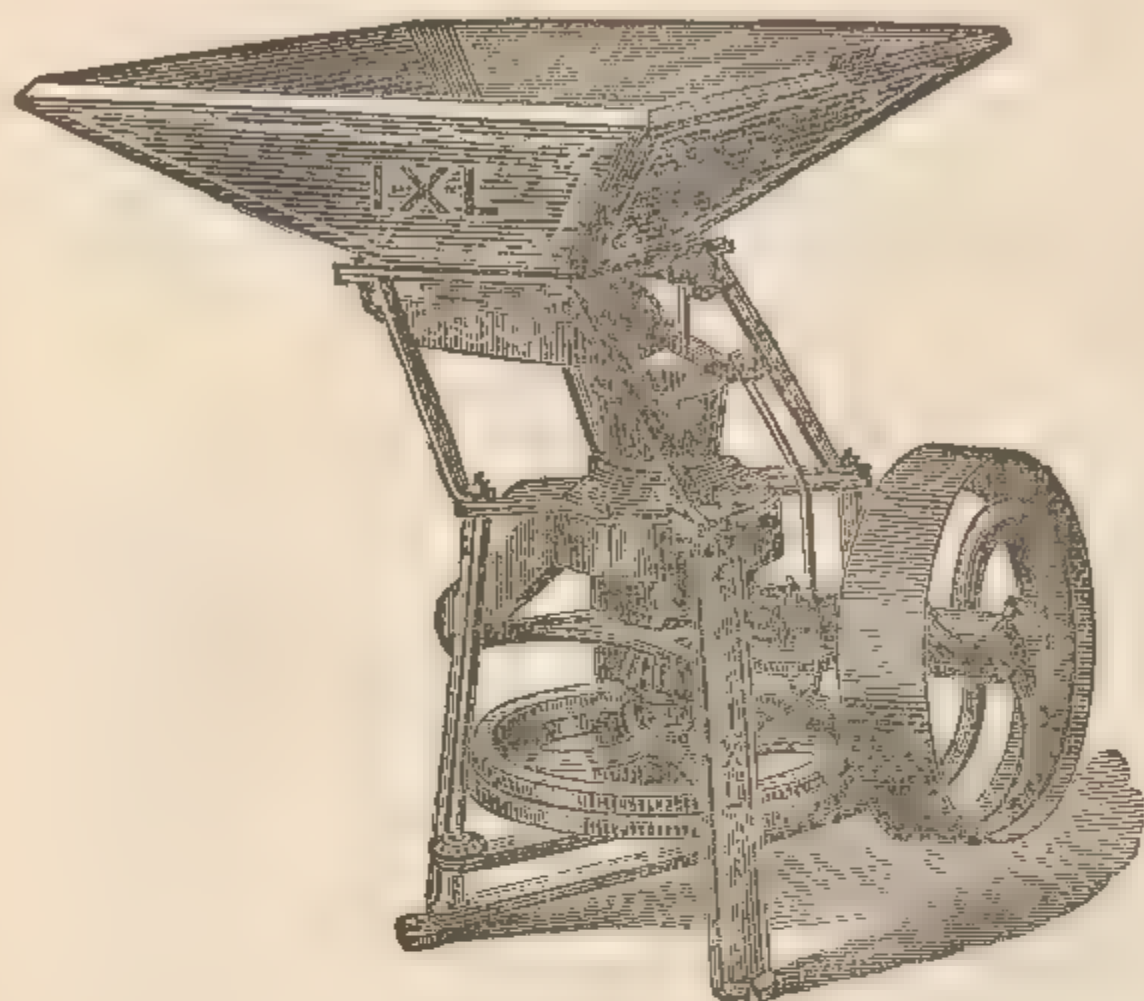
McLEAN BROTHERS, RIGG & CO.,

THE IXL IRON FEED GRINDER.

OVER FIFTEEN YEARS IN USE.

ALL IRON BUT THE HOPPER.

Can be run equally well by Wind, Horse, or Steam Power.



Has Safety Pin which will break when Nails, Screws, Nuts, etc., get between the Plates, thus preventing any damage.



Has a Steel Upright Shaft. The Regulating Screw is up where it can be operated handily.

The Cheapest, Most Durable, and Perfect Iron Feed Mill ever constructed.

Everything in relation to it is as simple as a common Spice or Coffee Mill, and as easily managed. The circular chilled iron plates that do the grinding, unlike any other Mill ever before constructed, have a grinding surface on both sides; when one side has been dulled, the other can be used by reversing the plates; thus *one set of plates is equal in value to two on the old plan.*

An extra set of plates accompanies each Mill; when worn, the plates may be easily and quickly removed, and the sharp ones substituted.

The lower grinding plate is set upon a universal joint, giving it play and ease, instead of rigidity, in its motion—while the rapidity with which it turns holds it even to its work—nails, small pieces of metal or stone fed in with the grain are by this arrangement allowed to pass through without much injury to plates; and there is no necessity of a skilled mechanic to fit it in place as with many other Mills.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

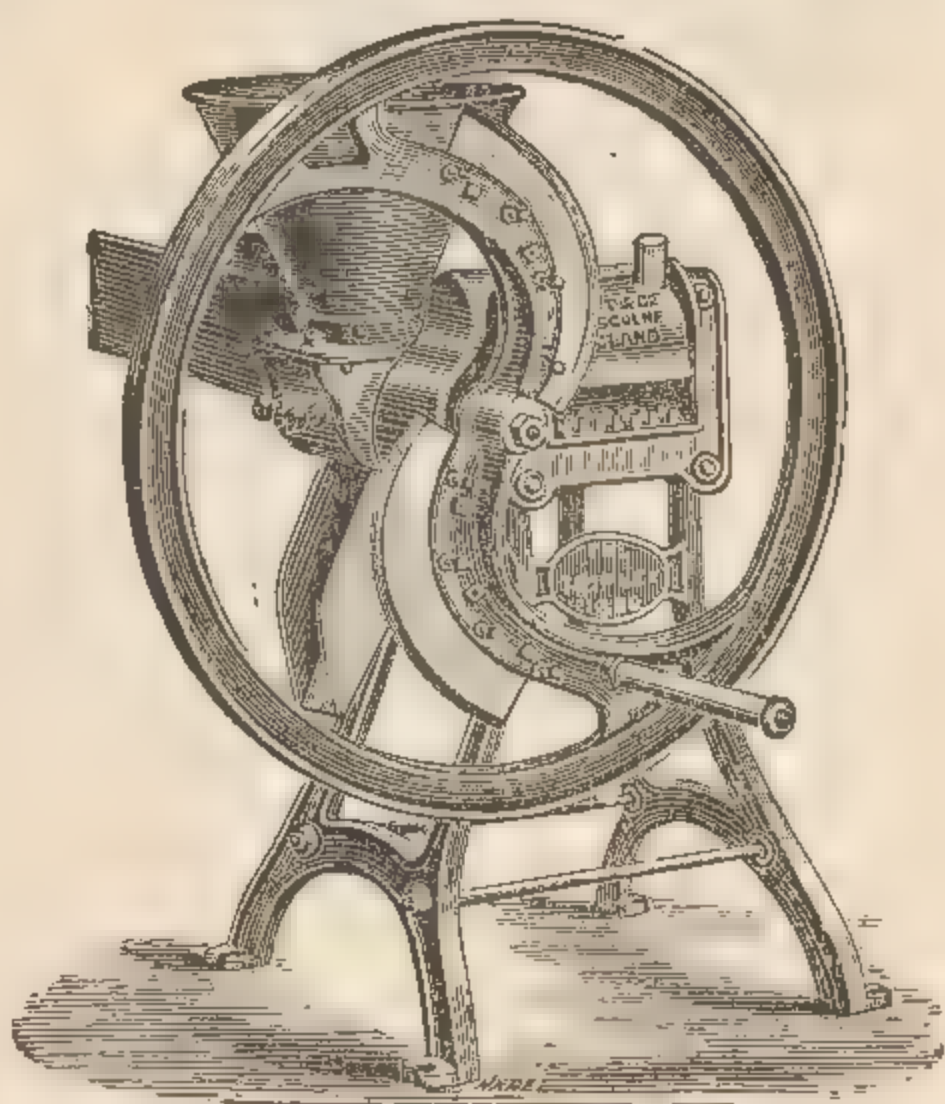
R. HUNT & CO.'S

PATENT COMBINED

CHAFFCUTTERS

AND

CORN CRUSHERS.



The "Duplex."

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

R. HUNT & CO.'S

"DUPLEX" MACHINE

As illustrated on the opposite page, will be found specially advantageous to those keeping two or three horses, and having but little space at their disposal, as they combine in a compact machine the most essential requirements of the stable.

The CHAFFCUTTERS have rising mouths $8\frac{1}{4}$ -in. by 3-in., and will cut about two cwt. of CHAFF per hour. They are fitted with extra large fly-wheels, and can be fitted with convex or concave knives.

There is a spring at the back of the fly-wheel so that when grinding corn the knives can be removed from the face by simply slacking the nut in front: a catch is provided to hold the spanner required for this purpose so that it may always be to hand.

The "DUPLEX" has a Solid Steel Roller, arranged for cutting Oats or Maize on Biddell's Principle, and is fitted with a patent cutting plate; it is fitted with a capacious hopper, and will crush from $2\frac{1}{2}$ to 3 bushels per hour.

ALL GEARING ENCLOSED WITH A NEAT CAST-IRON COVER.

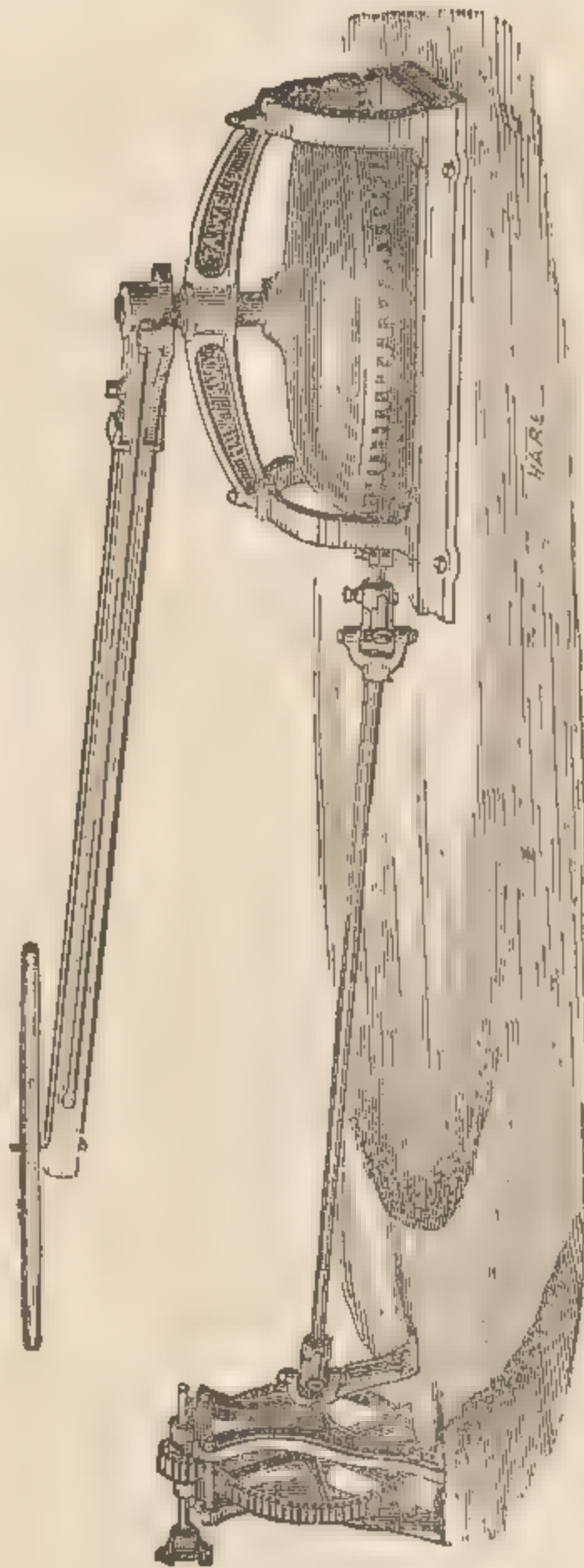
ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

R. HUNT & CO.'S
HORSE GEARS.

SYDNEY,

MELBOURNE,



LONDON,

NEW YORK,

With Separate Intermediate Motion.

All Gears are fitted with Improved Spring Clutches, easily adjustable to run either way, without extra charge.

SPEED—Pinion Spindle of Motion, 35, 30, or 26 to one of the Horse.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

R. HUNT & CO.'S

HORSE GEARS

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,



With Increasing Motion

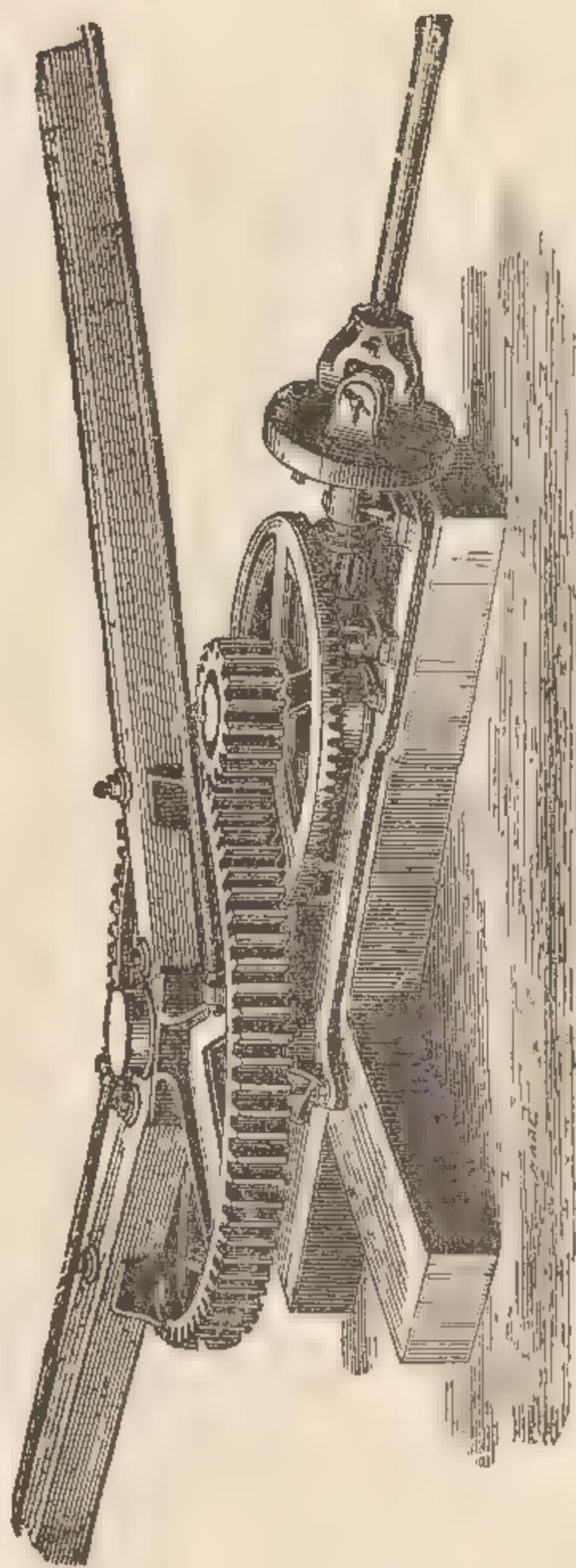
On same Frame as the Driving-Wheel.

Various Sizes in Stock.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

SPUR-WHEEL HORSE GEARS.



This Gear is designed for cheapness, and is suitable for driving small Thrashing Machines, Chaffcutters, and other Agricultural Machinery. It will be found a thoroughly serviceable and efficient Machine.

ADELAIDE.

SYDNEY,

MELBOURNE,

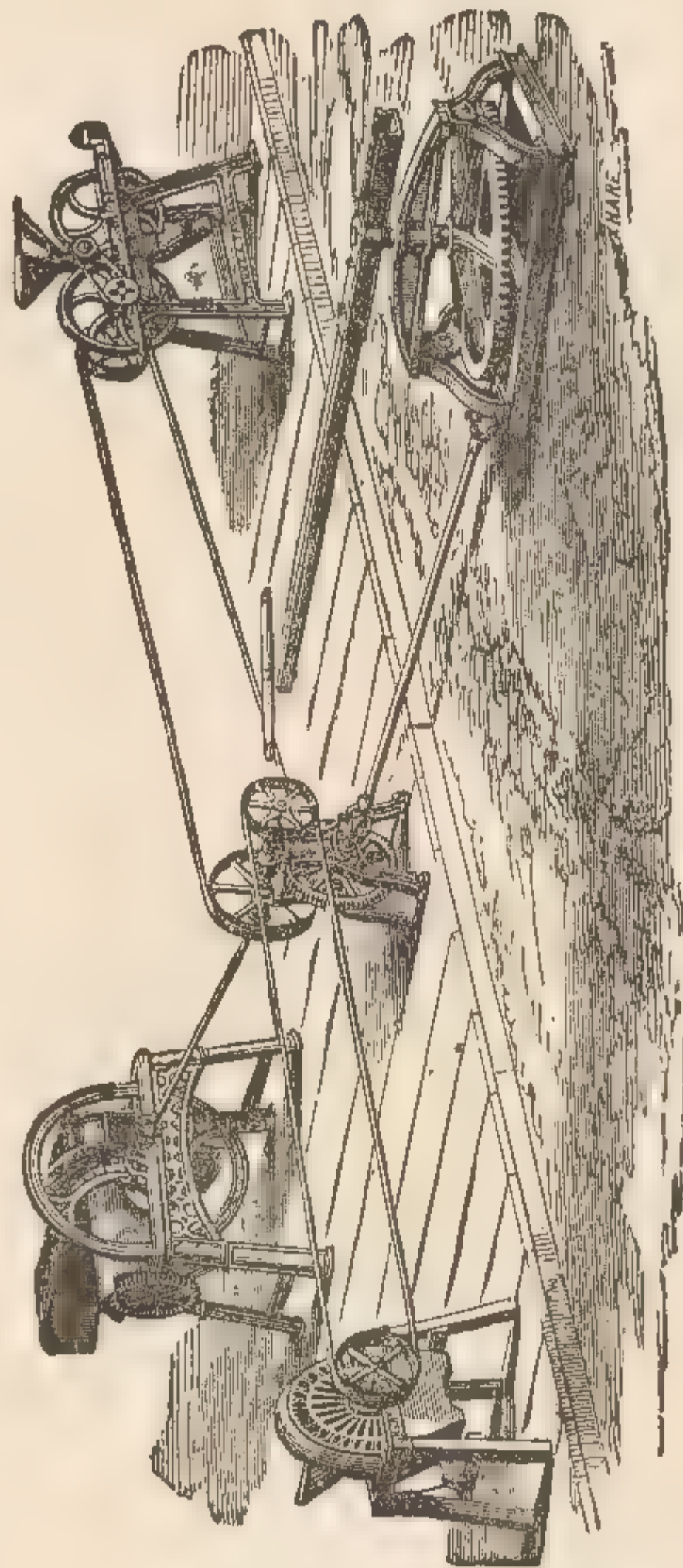
LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

R. HUNT & CO.'S

HORSE GEARS



The above Engraving shows a **Two-Horse Gear and Double Gear Intermediate Motion**, arranged for driving a Chaffcutter, Root Pulper, and Corn Crusher.

Full particulars on application.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

WALKER'S PATENT

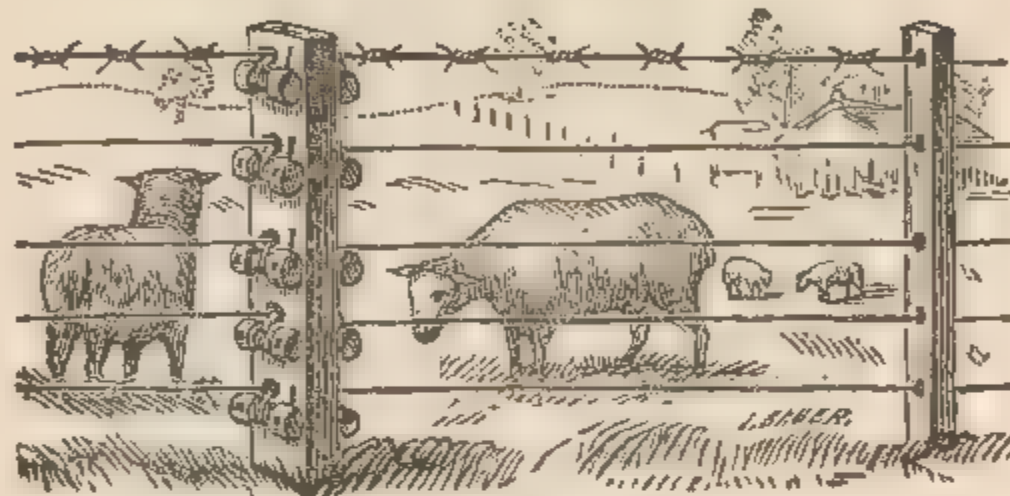
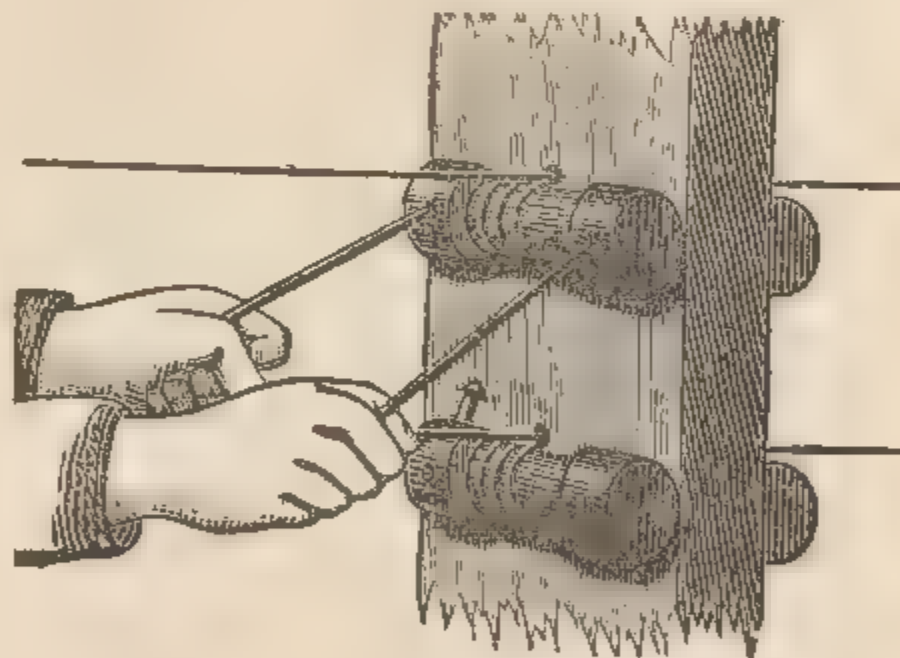


Illustration showing Strainers applied at every alternate 10-chain post.



Act of Straining.

WIRE STRAINERS.

ADELAIDE.

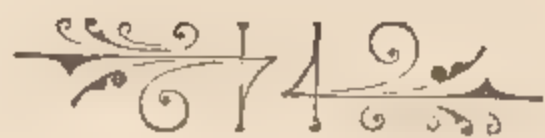
SYDNEY,

MELBOURNE,

LONDON,

NEW YORK.

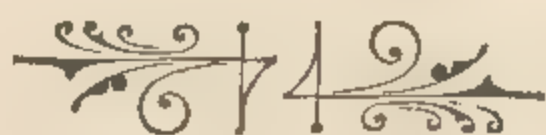
McLEAN BROTHERS, RIGG & CO.,



WALKER'S PATENT
WIRE STRAINER
AND
PERMANENT FASTENER

Is nothing but a Cast-Iron Roller. No Screw Threads. No Springs. No Ratchets. No Cogs. One man can stretch and fasten much more fencing than two can do in the same time by present methods. Each Strainer carries enough spare wire for immediate use in case of breakage, which can be effected without removing it from the post. Forty (40) Strainers will do a mile of 5-wire fence. Strainers measure 4-in. x 1½-in.

No directions are necessary, as the mode of working is so simple.



ADELAIDE.

SYDNEY,

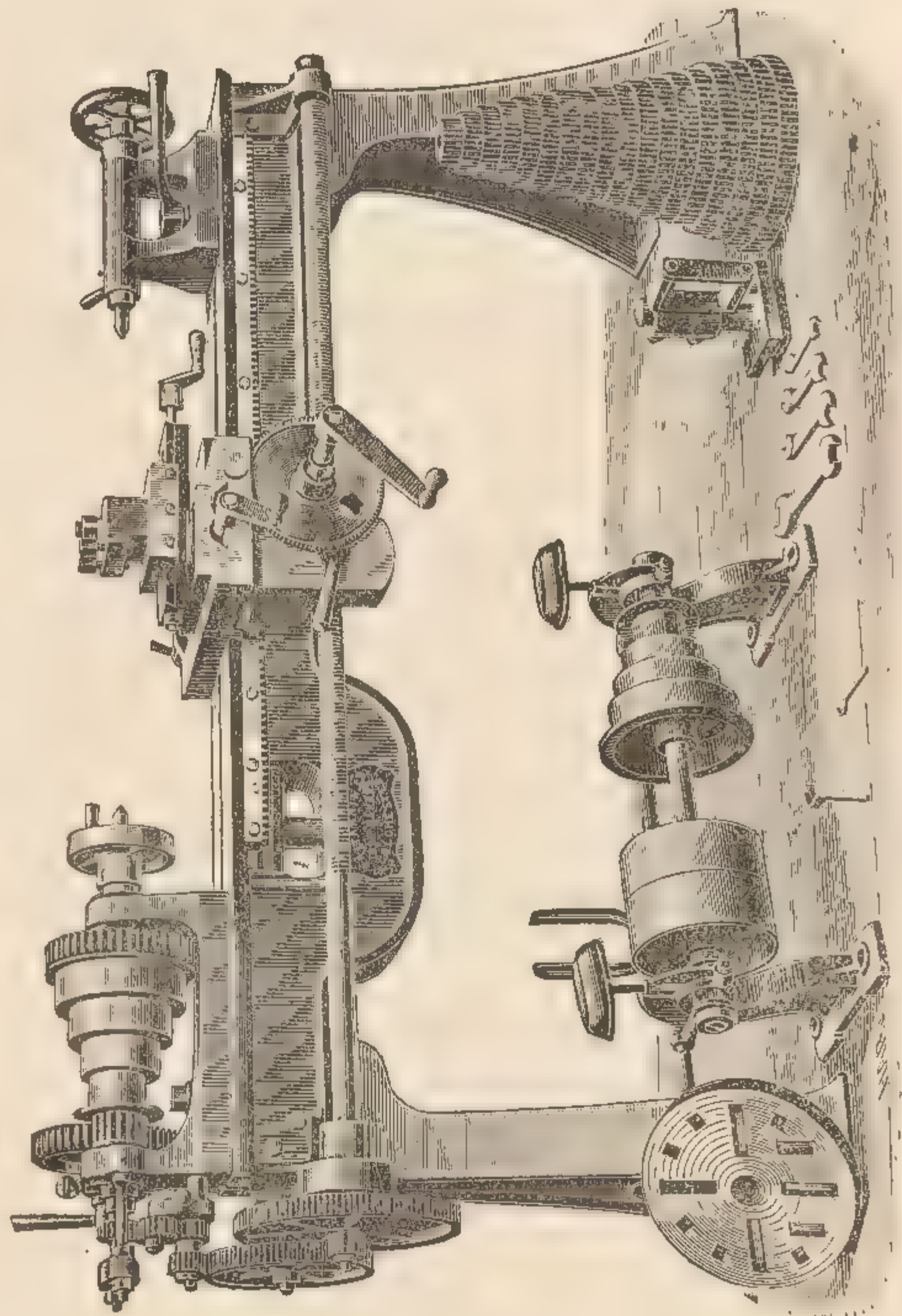
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

BRITANNIA COMPANY'S,
COLCHESTER,



SYDNEY,

MELBOURNE,

LONDON,

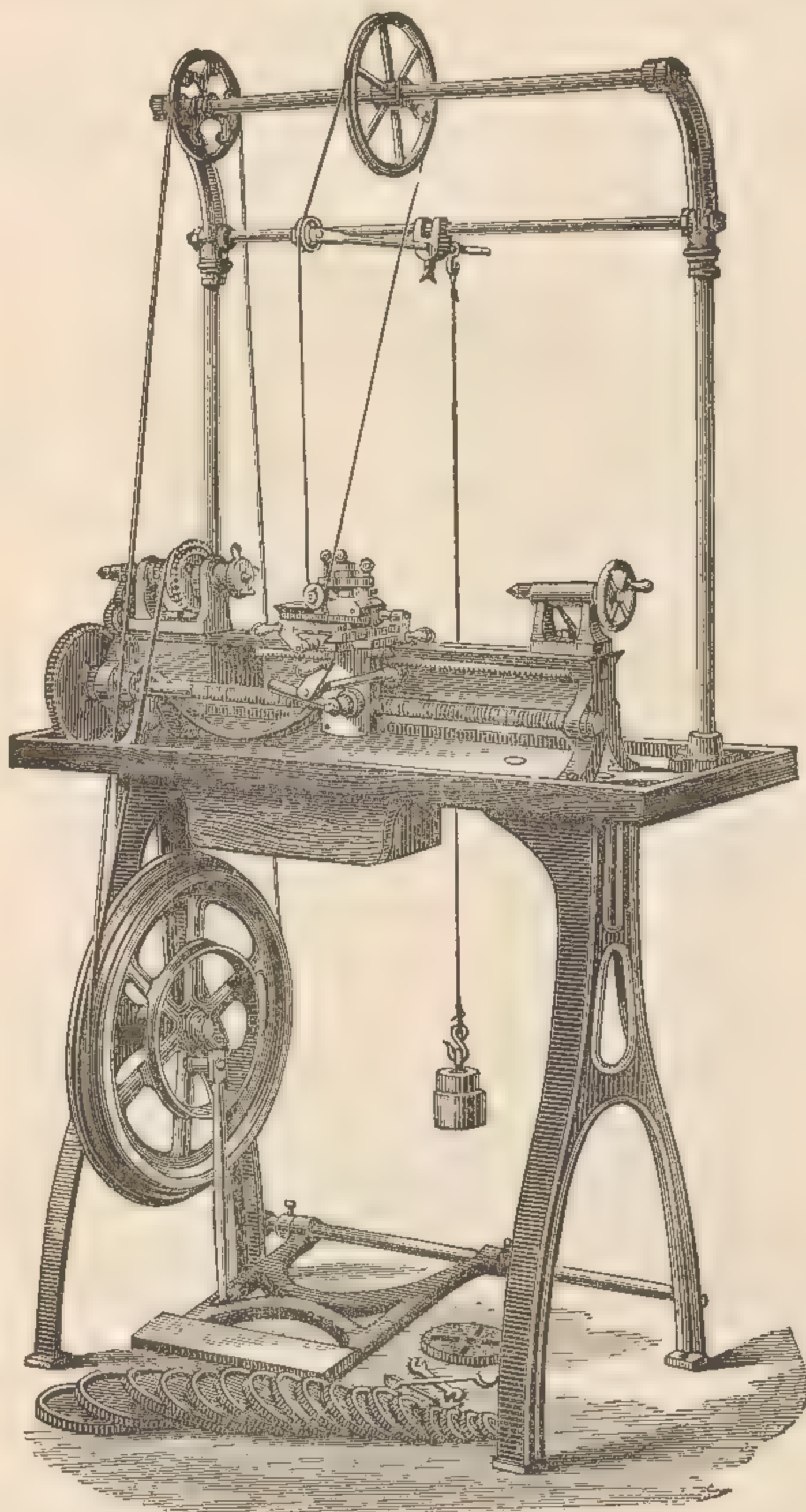
NEW YORK,

Self-Acting, Sliding, and Screw
CUTTING LATHES.

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

BRITANNIA COMPANY'S, COLCHESTER,



No. 13 Improved Self-Acting, Sliding, and Screw Cutting GAP
BED LATHE, of superior finish, best material and
workmanship.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

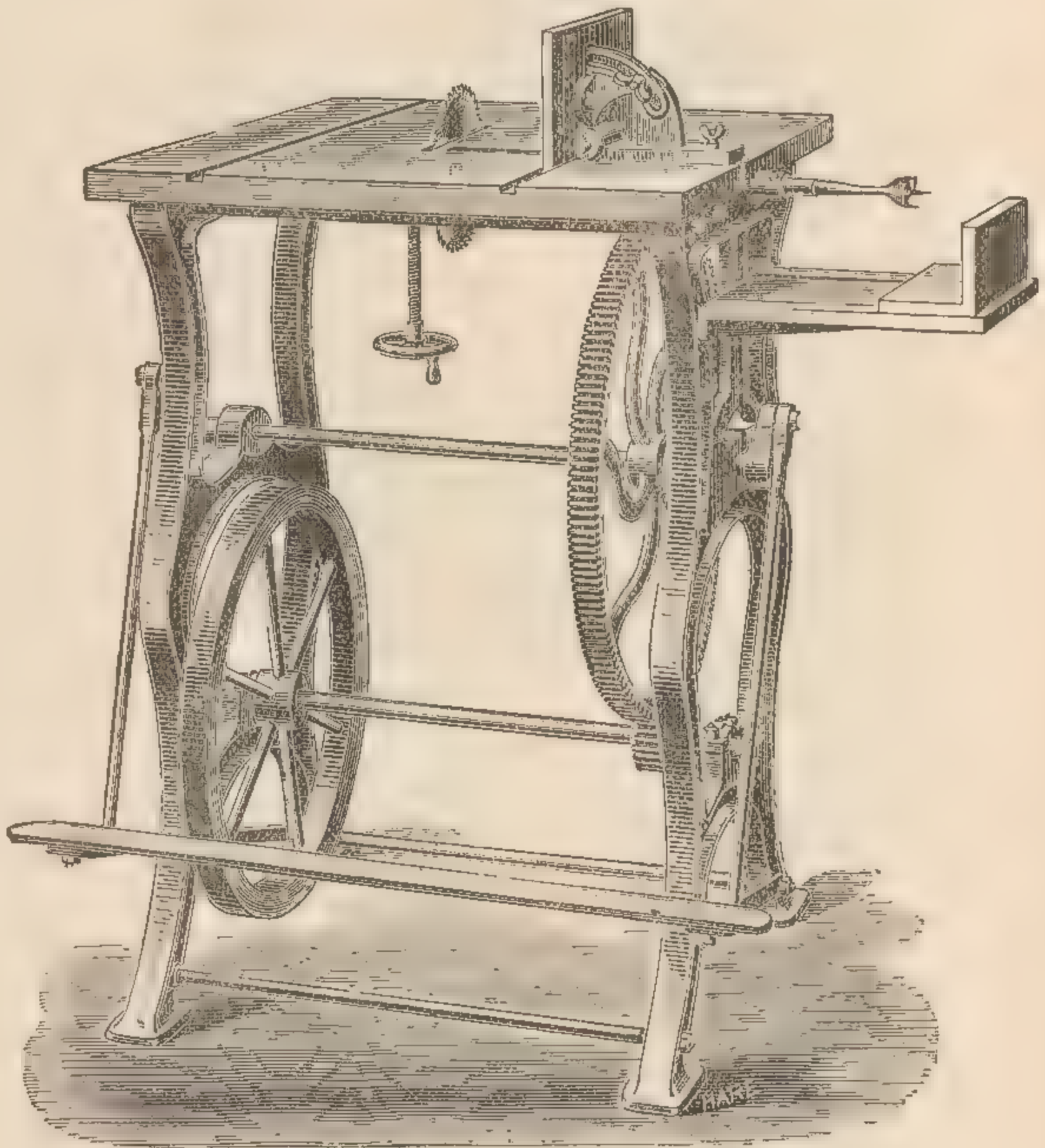
NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

BRITANNIA COMPANY'S NEW SAW,

Patented 1885.

*Specially adapted for Pattern Makers, Cabinet Makers,
Joiners, Picture Frame Makers; for Circular, Groove
Cutting, Dowelling, and Drilling.*



One Rip, Crosscut, and Grooving Saws. Fret Arm to suspend from ceiling for Fret Cutting, including 3 Saws. 2 Mitre and Crosscut Guages. Adjustable Table at end. 1,500 Revolutions per Minute. A Handle at left can be used as auxiliary to, or in lieu of Treadle. One man cuts 10 feet of inch wood in a minute by treadle power. Weight, about 4 cwt. Size, 2 ft. 9 in. x 2 ft. 3 in.; 3 ft. 5 in. high.

ADELAIDE.

SYDNEY,

MELBOURNE,

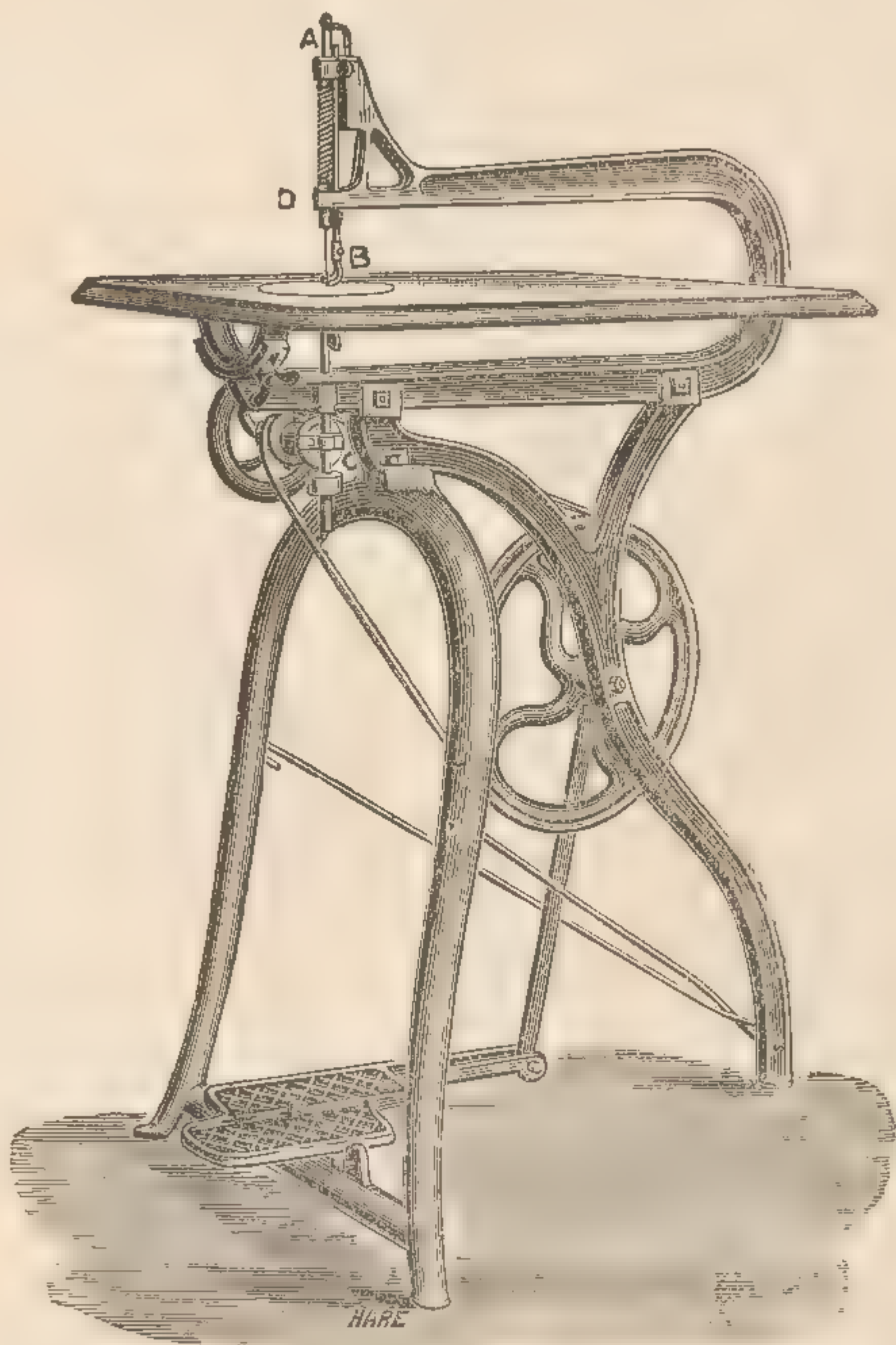
LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

BRITANNIA COMPANY'S

(Colchester, England)



New Registered

FRET SAW

No. 7.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK.

McLEAN BROTHERS, RIGG & CO.,

BRITANNIA COMPANY'S

(Colchester, England)

New Registered Fret Saw,

No. 7.

PRIZE MEDALS AT KENSINGTON, 1884,

Technical Educational Section. 7 Varieties of Fret Saws.

PRIZE MEDALS FOR LATHES,

London, Calcutta, Amsterdam, New Zealand. 250 Varieties.

The above FRET SAW has been designed to meet a demand by advanced Fret Cutters and Cabinet Makers for a Strong Saw capable of doing larger work.

The advantages enumerated will be obvious to any Fret Worker:—

1.—The Table is oblong, and extends the whole length under the Arm, giving ample room for larger-sized work, and tilts to any required angle for doing Inlaid Work. It is 20 inches from the Saw to the Arm, and will cut $\frac{5}{8}$ wood easily.

2.—The Saw has a true vertical stroke, which is so essential for cutting smoothly and easily.

3.—It is fitted with a durable and efficient Blower.

4.—A Presser Foot, B, which can be instantly adjusted to wood of any thickness, prevents the upward jerking of work, which is so much objected to, and which causes such frequent breakage of Saws.

5.—It has a Horizontal Drill, which is not visible in the illustration.

6.—The Table is fitted with a loose round piece, which can be removed when fixing a Saw, giving a clear view of the Lower Saw Bar.

7.—It has a Horizontal Drill Shaft, which will also hold Emery Wheels, Buff Wheels, or Polishing Brushes.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

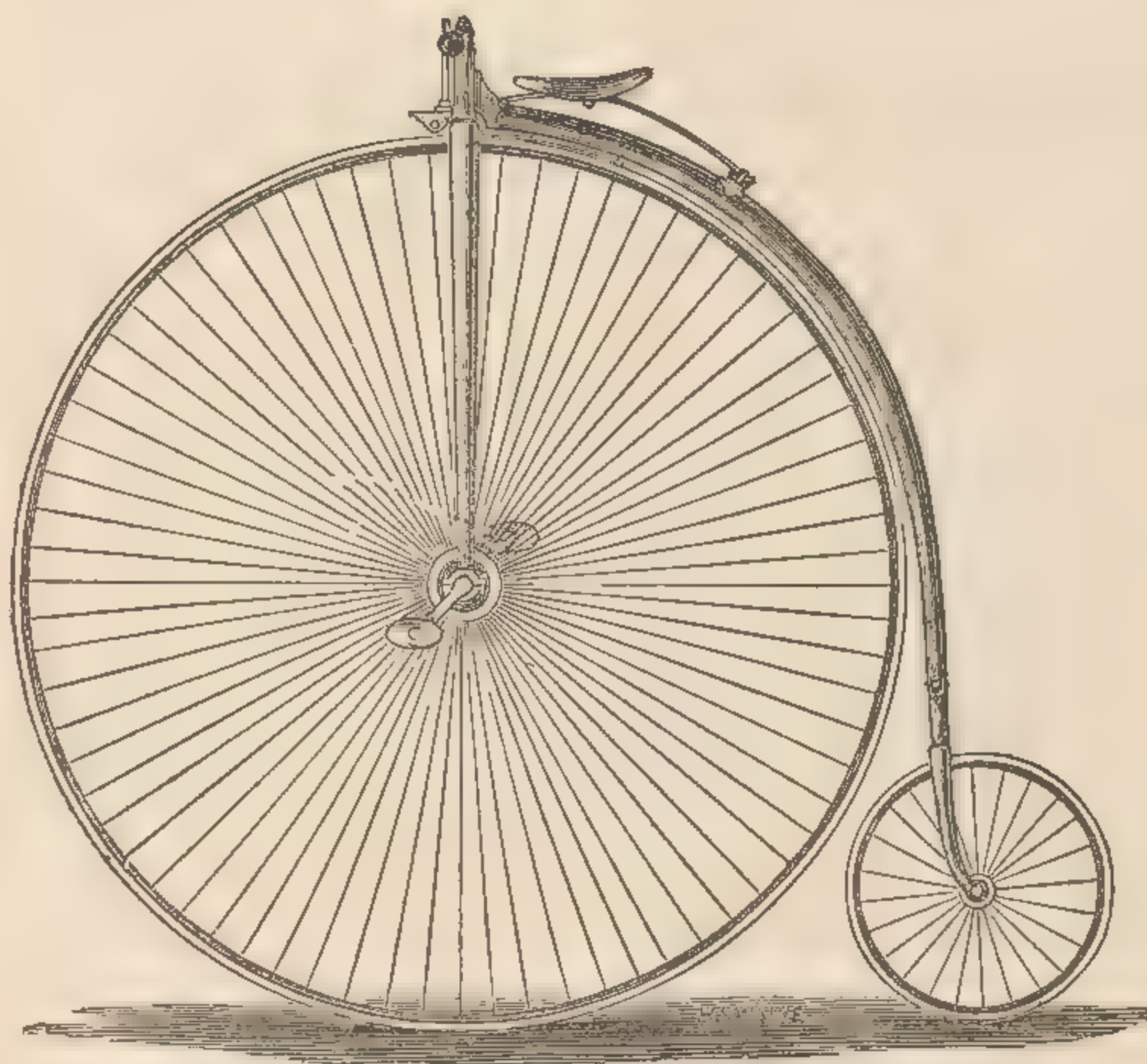
NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

✧ BICYCLES ✧

— AND —

TRICYCLES



MANUFACTURED BY

Messrs. Singer & Co.,

COVENTRY, ENGLAND.

The Largest Cycle Makers in the World.

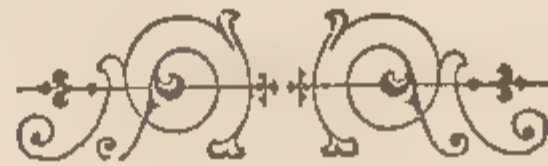
ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,



The engraving will explain the character of

SINGER'S BICYCLES,

Which they have specially designed and re-modelled with a view to supplying the numerous body of riders with the very best value at the lowest possible price, and we have no hesitation in saying that their Machines are thoroughly reliable, light, powerful, and strong, containing all the most important features of a Bicycle. Their Bicycles are sent out fitted with ball bearings to front and back wheels, both thoroughly adjustable and dust-proof. Weldless steel-tube backbones. Hollow front forks of weldless steel tube; half-hollow back fork. Very rigid steering head, with long centres, so that they cannot work loose, with long detachable cowhorn handle-bars. Front wheel—Grip spoon brake, gun-metal flanges, and steel spindle to hubs, and spokes screwed direct into the hub. Patent detachable cranks, rubber pedals, long distance saddle, spanner, and oilcan.



ADELAIDE.

SYDNEY,

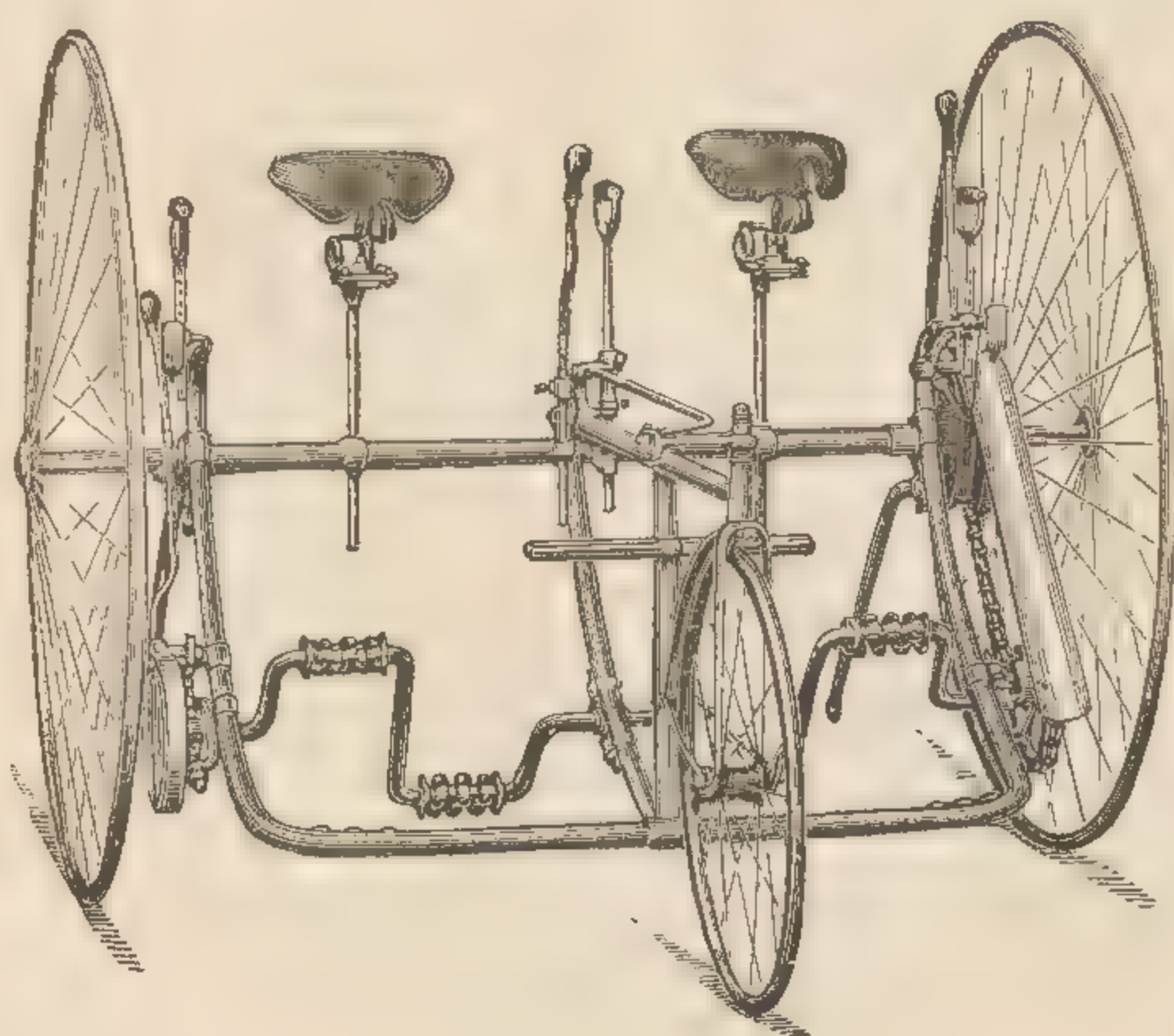
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

SINGER'S SINGLE AND DOUBLE TRICYCLES.



The SINGLE MACHINE differs from the above engraving, having the Driving-Chair in the centre. It has ball bearings to all parts except pedals.

MOTHS IN CARPETS.

Take a coarse crash towel, wring it out of clear water, spread it smoothly on the carpet, and iron lightly with a hot iron. The steam kills the moths and eggs.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

SINGER'S

“TANDEM.”



SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Central-geared, Convertible, Telescopic.

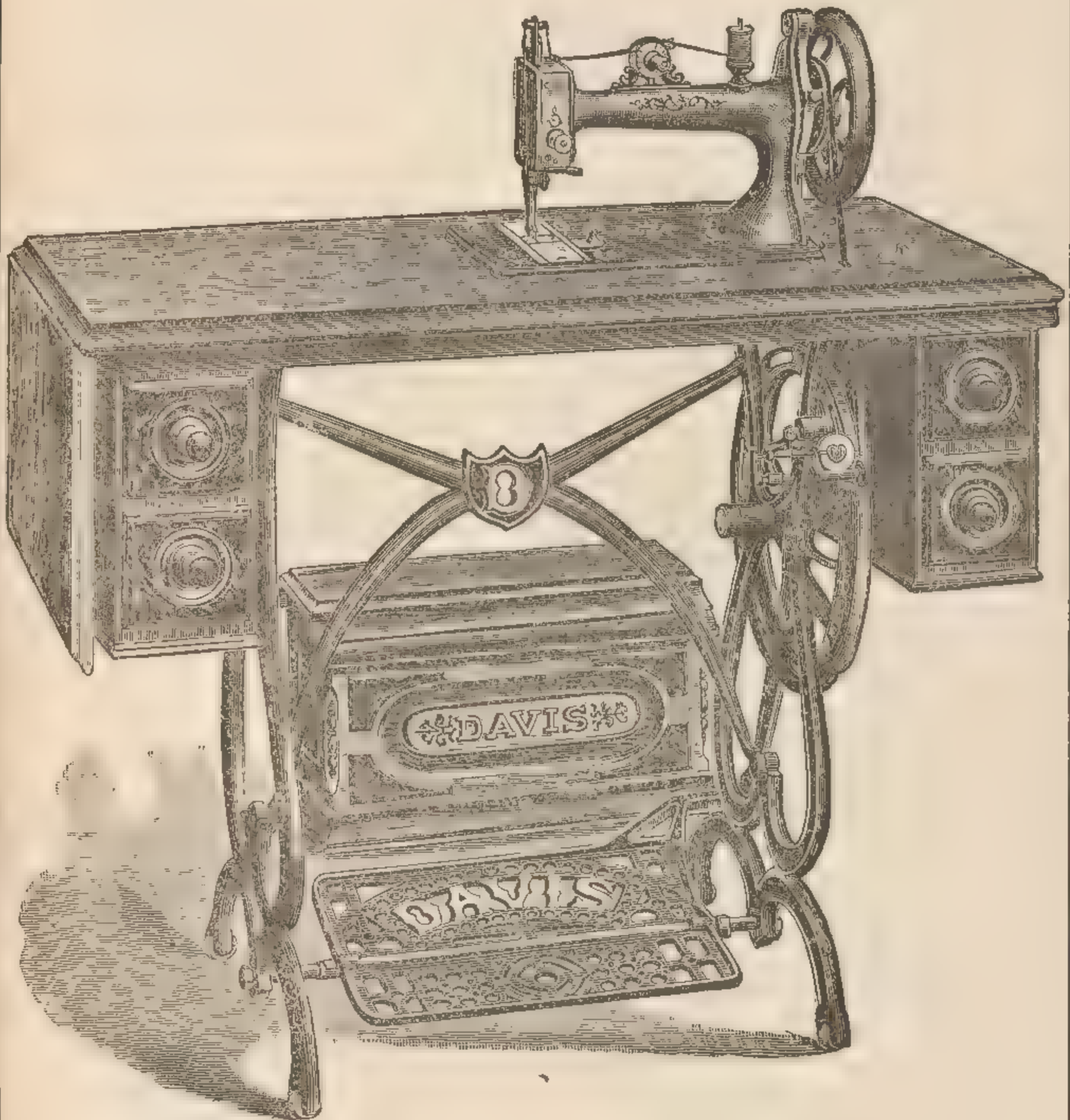
ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

NEW HIGH ARM

“DAVIS”

Vertical Feed



SEWING MACHINE

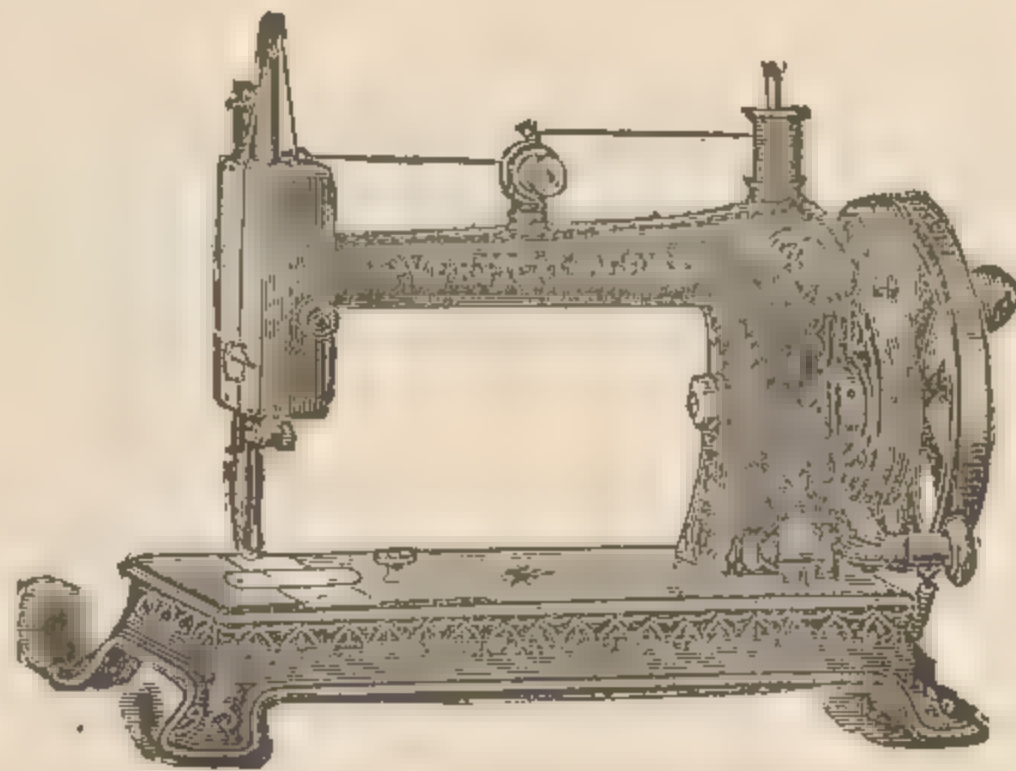
ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

♦♦ DAVIS ♦♦

VERTICAL FEED

New High Arm Sewing Machine.



The DAVIS HIGH ARM VERTICAL FEED SEWING MACHINE, both hand and treadle, has recently been greatly improved.

It has always since its first introduction enjoyed the reputation of being the lightest running and simplest in its action of any yet offered. The recent improvements have still further placed it ahead of all competitors, the number of parts having been considerably reduced. It does many kinds of work not attempted by any other machine. It is so durable that there is not an instance in the colony of a worn-out machine.

It is rapid, strong, handsome, and its use easier to learn than any other.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Station Requirements.

We have much pleasure in presenting our list of Station Supplies, and wish it to be understood that we have paid special attention to this branch of the business, all goods supplied will be of the best quality. Great care is exercised with any orders we may be favoured with, and customers can always rely upon them having quick despatch.

Anvils	Filters
Axes	Grindstones
Augers	Guns, Single and Double Barrel
Axe Handles	Harnes
Blacksmiths' Bellows	Hame Straps
Bluestone	Hammocks
Bolts and Nuts	Hobbles
Brushes of all kinds	Horse Clippers
Brooms	Hurdles
Bridles	Galvanized Corrugated Iron
Brands for Sheep and Cattle	Iron, Bar and Rod
Buckets	Knives and Forks
Camp Ovens	“ Pocket
Caps, Gun	“ Butchers'
Chains, Bullock	Lanterns
“ Trace	Lamps
“ Hobble	Lamp Black
“ Drag	Marking Ink
Dog Traps	Nails, all kinds
Dumping Hoops	Oil, Boiled
“ Rivets	“ Raw
Ear Plyers	“ Kerosine
Earth Scoops	“ Salad
Fencing Standards	Packing Needles
“ Staples	Paints
“ Wire	Paint Brushes

ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

STATION REQUIREMENTS—*continued.*

Pannikins	Steel
Pitch	Stockholm Tar
Powder, Gun	Tar, Coal
Portable Forges	Tanks, 200 and 400 gallon
Pumps	Tents
Raddle	Tarpaulins
Rabbit Traps	Tin Plates
Revolvers	Troughing, Sheep and Cattle
Rifles	Troughing Feet
Rope, Manila	“ “ Bolts
“ Wire	Turpentine
Saws, Crosscut	Turkey Stone
“ Hand	Twine
Saddles	Water Bags
Sack Trucks	“ Lifters
Shot	Weighing Machines
Sheep Netting	Weston's Pulley Blocks
Shovels	White Lead
Shears, Sheep	Windmills
“ Garden	Wire Fencing, all kinds
Soft Soap	Wire Strainers
Solder	“ Netting
Spouting and Fixing	Wool Baskets
Spades	“ Packs
Stencil Plates	“ Presses
“ Inks	

Also, a large assortment of Smiths', Farriers', Carpenters' Tools, Farm, Dairy, and Garden Implements, Building, and Furnishing Ironmongery.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

ADELAIDE.

Paints, Dry Colours.

We have always a large stock of the following on hand :—

Blacks, Blue	Lakes, Crimson
Ivory	Maroon
Drop	Scarlet
Lamp	Victorian
Vegetable	Pinks, Rose
Blues, Celestial	Dutch
Lime	Reds, Chinese
Prussian	Indian
Ultramarine	Oxide
Browns, Purple	Persian
Spanish	Venetian
Umber	Vermilion
Greens, Bronze	White Lead
Brunswick	Yellows, Lemon Chrome
Chrome	Orange do.
Emerald	Ochre
Persian	
Quaker	
Mineral	

READY MIXED PAINTS

In 1, 2, and 4 lb. Tins.

Black	White	Oxide	Blue
Green, Light and Dark		Red	Chocolate
Yellow	Stone, Light, Medium, and Dark		

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Paints in Oil.

We have much pleasure in calling the special attention of our customers to the following lines of Paint in Oil:—

White Lead, Champion's Genuine	Lead Colour
Pat Driers	Stone “
Dark Olive	Yellow
Burnt Umber	Oxide Red
Venetian Red	Yellow Chrome
Yellow Ochre	Purple Brown
Blue	Slate
Black	Green
Brown Umber	Burnt Sienna
Spanish Brown	Raw “
Buff Colour	Vandyke Brown
Brunswick Green, light, mid., dark	Oxford Ochre
Bronze Green	

MASURY'S PAINTS

In $\frac{1}{4}$, $\frac{1}{2}$, and 1 lb. tins, mixed ready for use.

Ochre	Blue
Red	Brown
Turkey Umber	Chrome
Vermilion	Crimson
White Flake	Green
Black	

PAINT MIXING.

28 lbs. White Lead takes about $1\frac{3}{4}$ gallons Linseed Oil and 1 quart Turpentine, but the proportion will vary according to circumstances.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

Varnish.

The following is a list of

Messrs. Harland's Varnishes always in stock

In half and one-gallon Tins :—

Body, Pale Durable	Carriage, Hard Drying
Hard Drying	Best Waggonette
Durable No. 1	Copal, Fine Pale
Railway	Best Hard
Flatting Best	Oak, Fine
Gold Size	Best Hard
Emerald Japan	Inside
Liquid Driers	Outside

ALSO VARNISH OF OTHER MAKERS KEPT IN STOCK

Mander's, Turner's, Clark's.

O I L S.

Boiled Linseed	Colza
Raw “	Olive
Neatsfoot	Castor
Lard	Kerosine

The above may be had in Casks or Drums in 5 and 10 gals.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Brushware.

Brooms, Hair	Dandy Brushes
“ Bass	Flue “
“ Scavengers	Tube “
Banister Brushes	Horsebody Brushes
Black Lead “	Oil “
Brewers’ Scrubs	Shoe “
Deck “	Polishing “
Spoke Brushes	Blacking “
Sweeps’ Dusters	Tar “
Hair Scrubs	Water “
Cocoa Fibre Scrubs	Paint “ (all kinds)
Grey “ “	Sash Tools
White Scrubs	Whitewash Brushes
Adelaide “	Distemper “
Turks’ Heads	Hearth “



COLONIAL-MADE BRUSHWARE

A Specialty with us. Samples in stock of good value.

ADELAIDE.

SYDNEY,

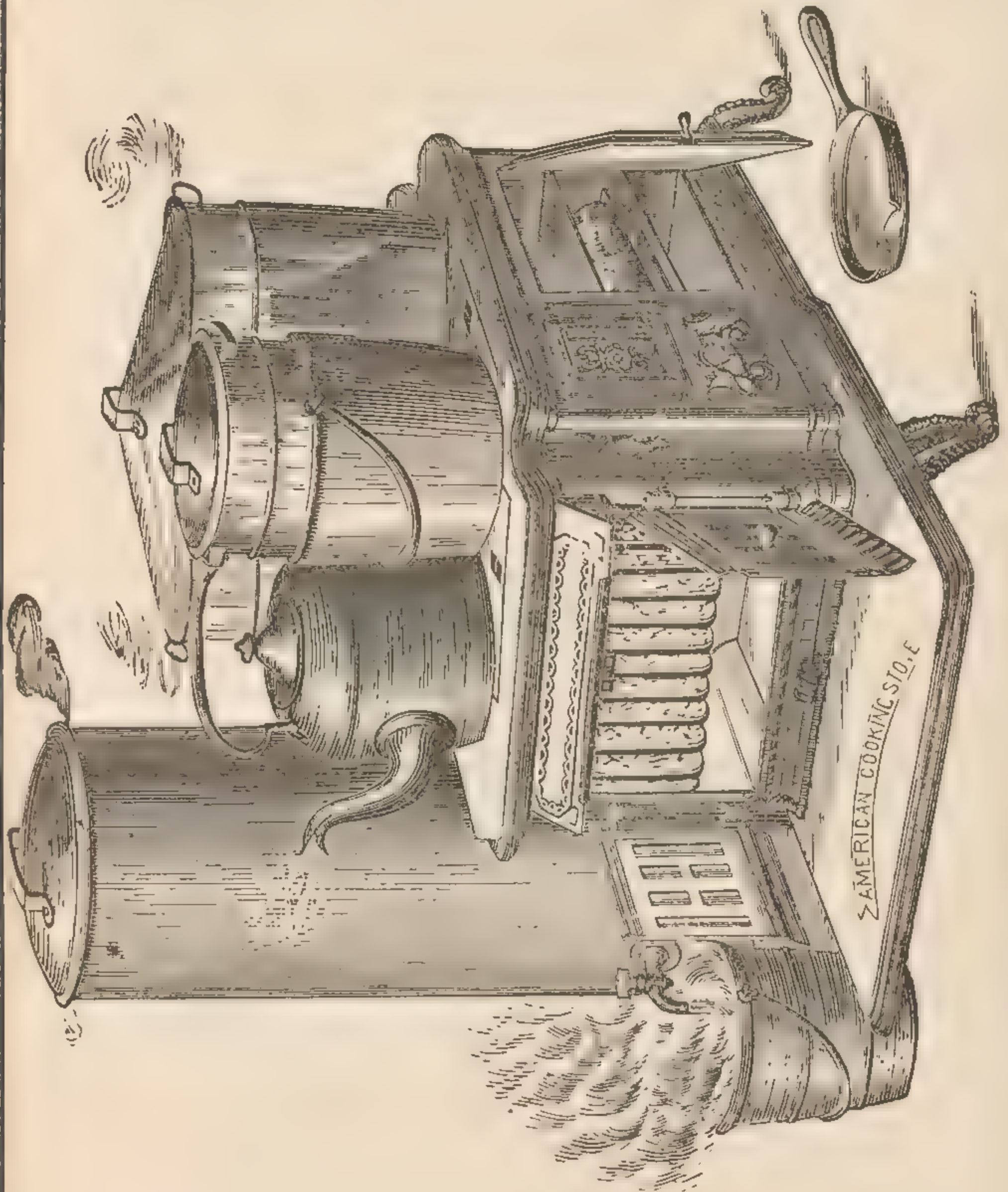
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

COOKING STOVES AND RANGES.



They are all constructed upon the
MOST IMPROVED PRINCIPLES.

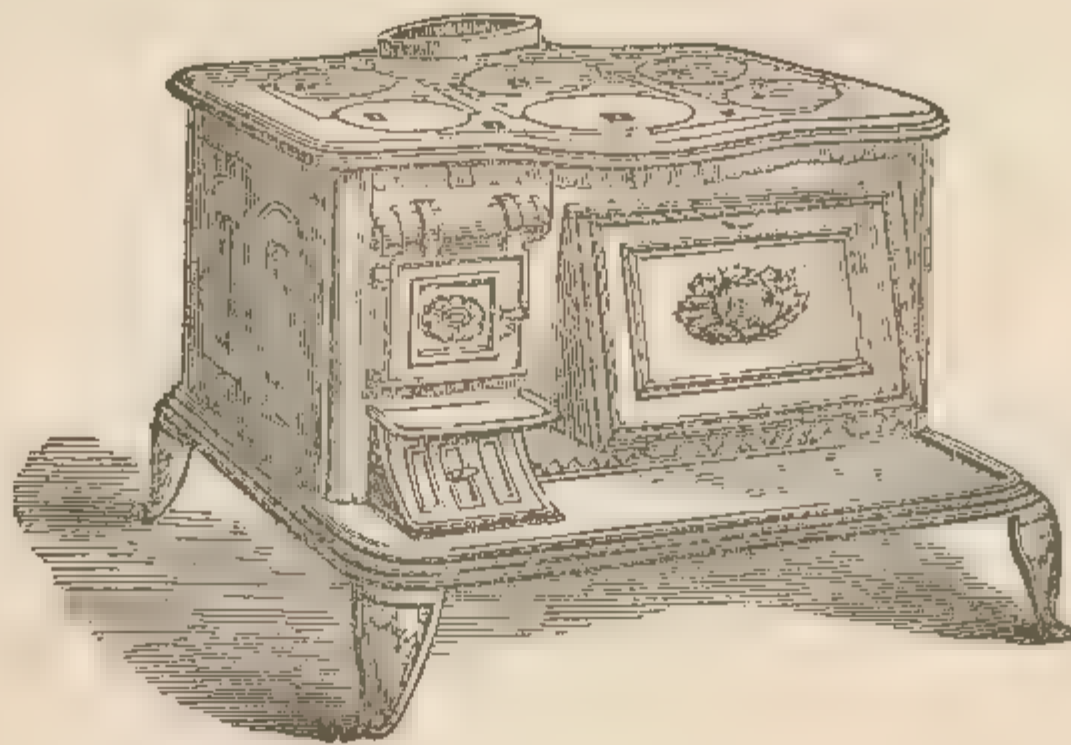
ADELAIDE.

McLEAN BROTHERS, RIGG & CO.,

Combined Close and Open Fire Ranges,
Cottage Ranges,

Kitchen Ranges with Back Boilers,
Wrought-iron Framed Oven or Roasters,
with cast top.

COOKING STOVES



"TRAFFORD."

"Mistress," "Trafford," "Fortress,"
"Little World."

* HEATING STOVES OF EVERY DESCRIPTION *

For Wood, Coal, and Gas.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

REGISTERED GRATES

Tile Grates

Slow Combustion Grates

Bright Register Grates

Hob Register Grates

Bronze Register Grates

Overmantel Registers with Mirrors

Tile Overmantel Registers with Mirrors.

MANTELPIECES

Marble Chimney Pieces

Sicilian and Sienna

Rouge and Black

St. Anne's and Black

Blanc Claire and Sienna Marble

Lavande

Bastard Statuary Marble.

MARBLE AND CAST-IRON

FENDER CURBS

Sicilian

Fine Cast Blacked

Best Vein

Best Berlin Black

St. Anne's

Best Berlin Black, with Brass Ball

Bastard Statuary

Mouldings

*ESTIMATES GIVEN FOR SPECIAL CHIMNEY PIECES
OR ANY KIND OF MARBLE WORK.*

ADELAIDE.

SYDNEY,

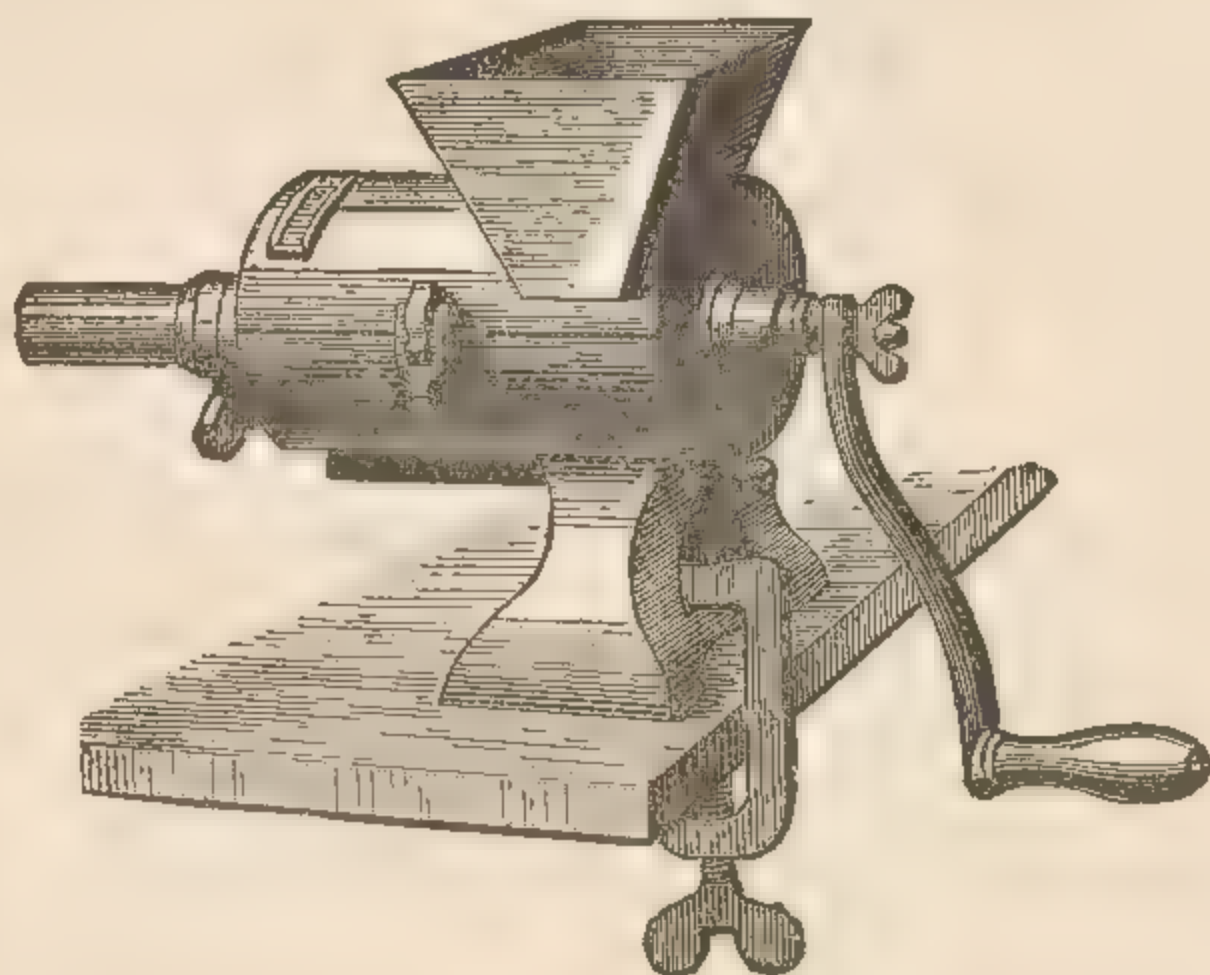
MELBOURNE,

LONDON,

NEW YORK.

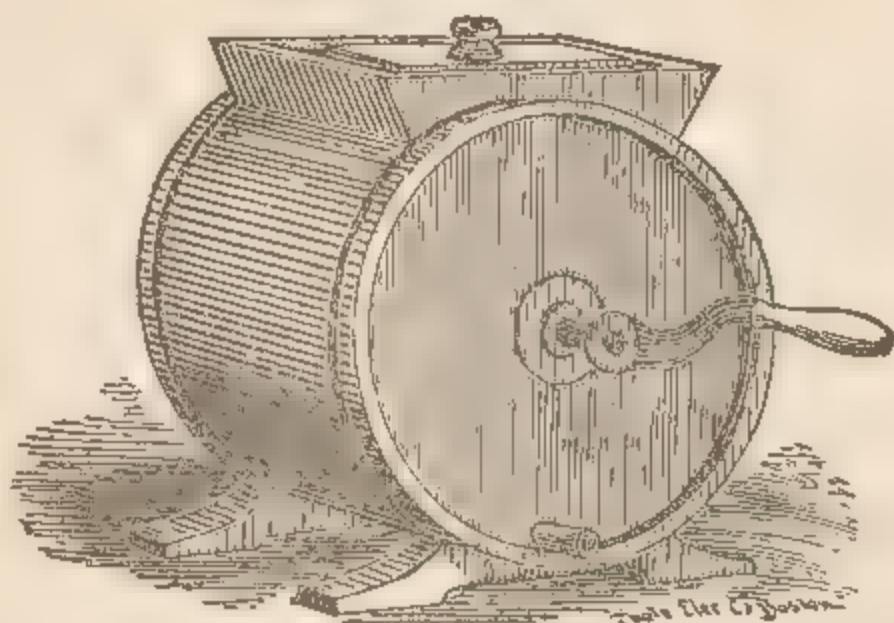
McLEAN BROTHERS, RIGG & CO.,

SAUSAGE AND MINCING MACHINES.



These Machines are supplied with a filling tube, so that the meat, if preferred in the form of sausages, can be so made up. They can be taken completely to pieces without any difficulty for the purpose of cleaning.

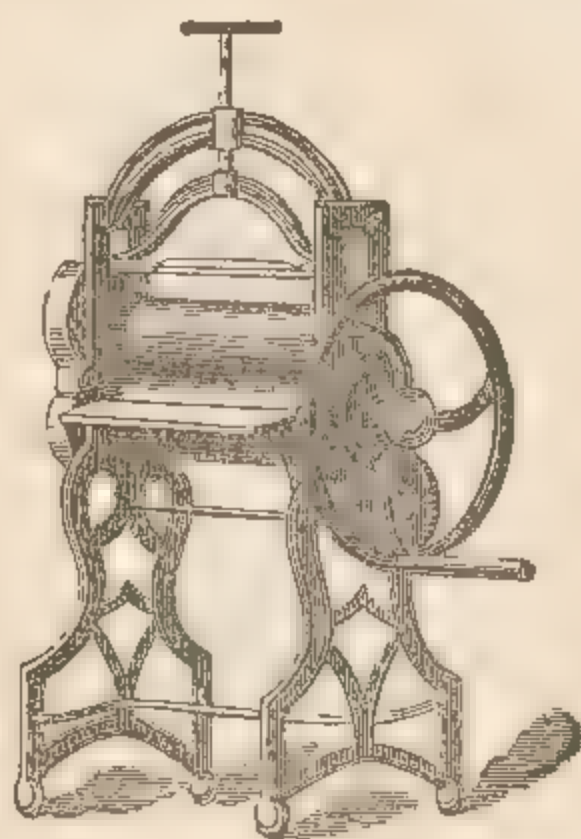
PATENT CHURNS.



Butter made in 15 Minutes
in

Nos. A, OO, O, 1, 2, 3, 4, 5,
and 6.

Washing, Wringing, and Mangling Machines.



NEW WRINGING AND MANGLING MACHINE.

A neat, handy, strong, useful, and compact Machine, with good quarter-cleft sycamore rollers.

Sizes and Prices on applying at 41 and 43, Hindley Street, Adelaide.

ADELAIDE.

LONDON,

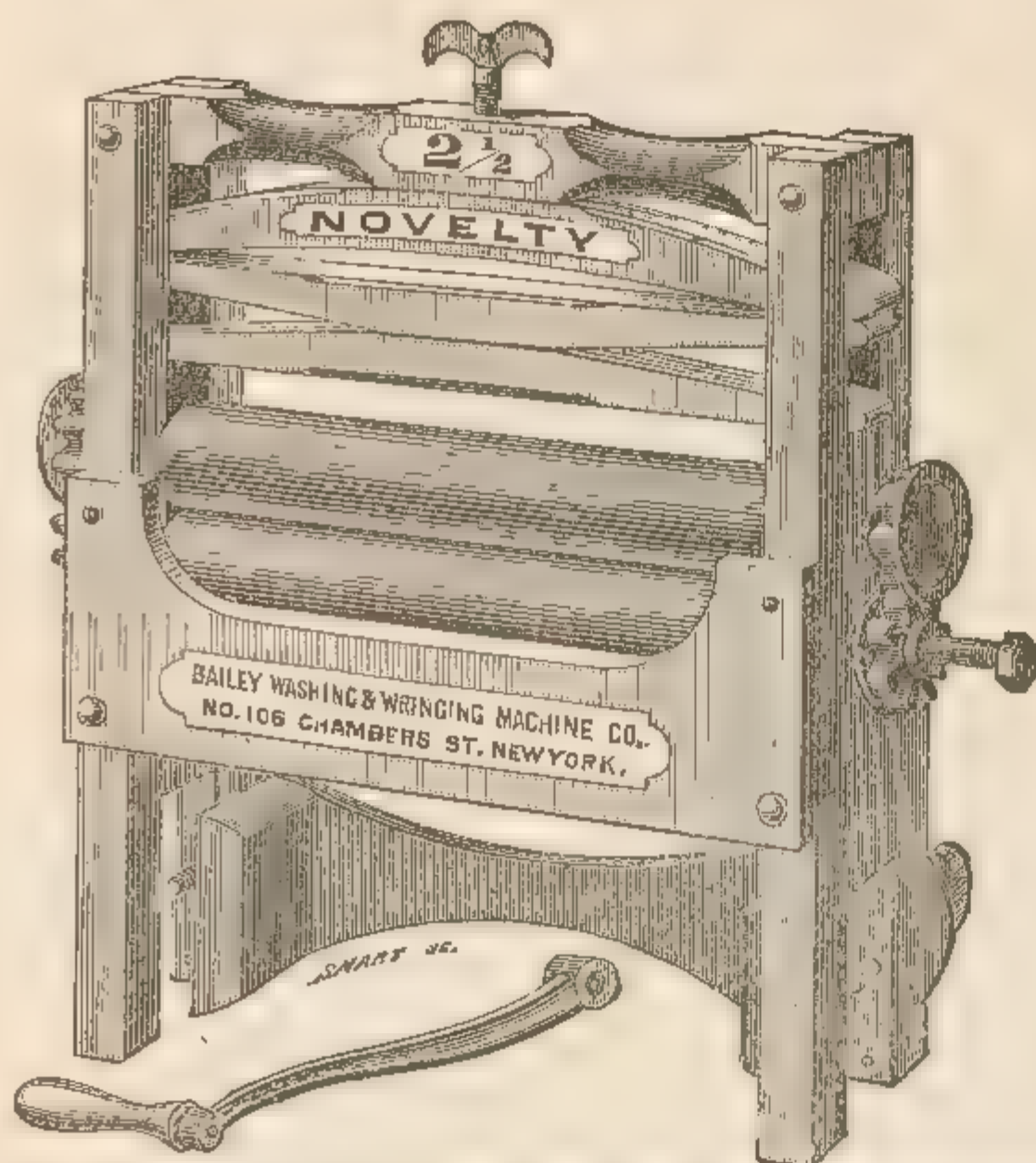
NEW YORK,

SYDNEY,

MELBOURNE,

McLEAN BROTHERS, RIGG & CO.,

PATENT "NOVELTY" WRINGERS



NOVELTY WRINGERS

Nos. 2, 2½, 3, 4.

UNIVERSAL WRINGERS

Nos. xx2, xx1½, xx1.

EVERLASTING CLOTHES LINES

Have been in use for years and are as good as ever. Can be had in different lengths.

Flat and Box Irons, all sizes.

The following is a short list of

WASHHOUSE AND LAUNDRY REQUIREMENTS

Box Irons and Heaters	Ironing Stoves
Buckets	Iron Stands
Clothes Wringers	Mangles
“ Lines	Piping Irons
“ Pegs	Goffering Tongs
Crimping Machines	Frilling Irons

TO REMOVE INK STAINS FROM LINEN.

A piece of damp rag dipped into Salts of Lemon and rubbed over ink spots will speedily remove every trace of ink from shirt fronts, &c., &c.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

ENAMELLED PLUNGE BATHS

SUITABLE FOR HOTELS OR PUBLIC INSTITUTIONS

ALSO,

**BATHS—Children's, Foot, Hip, Plunge,
Sponge, Shower, Sitz, Travelling.**

We have always a large supply of the above in stock.

ICE MAKING MACHINES

These Machines can be seen at work at any time making Ice at
the Warehouse 41 and 43, Hindley Street.

*Suitable for Family, Hotel, Cafes, Restaurants, and Con-
fectioners' Use.*

Will be found invaluable in the Sick Chamber, where cool drinks
and application of ice are indispensable.

No COUNTRY HOSPITAL should be without one.

This machine makes Block Ice in a short time at a trifling
cost.

BALDWIN'S REFRIGERATORS

In consequence of the great reduction in the price of Ice and
the consequent increase in its consumption, we have much pleasure
in introducing these Refrigerators, which can be supplied to the
public at a moderate rate, and which will be found much more
convenient and cleanly than the ordinary Ice Chest at present in
use.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

Gas Fittings.

CHANDELIERS.

Lacquered and Bronzed, Nickel Plated, and Cut Crystal.
The above in 2, 3, 4, or 5 lights, by the best English makers and
of the most modern design.

STRAIGHT AND SCROLL BRACKETS.

Great variety.

HALL AND LOBBY LAMPS.

Splendid assortment.

GAS GLOBES

Of all descriptions.

GAS STOVES.

Atmospheric Nos. 1 and 2. It can be attached to any gas jet by
means of a piece of flexible tube.

Kerosine Lamps.

An immense assortment to select from.

Hink's Double-Wick Lamps.

Defrie's Circular-Wick Lamps.

Climax Circular-Wick Lamps.

KEROSINE CHANDELIERS, 2, 3, 4, and 5 Lights.

KEROSINE HALL LAMPS. KEROSINE BRACKET LAMPS

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

FOLLOWS & BATES'
CELEBRATED PATENT LAWN MOWERS.



The New "MANCHESTER" Lawn Mower is the most simple Machine, as well as the cheapest, made. It will cut either long, short, or wet grass, and will not miss the bents. The Cylinders have five extra strong Steel Cutters, which are easily sharpened and are unbreakable.

The "ANGLO-AMERICAN" has been thoroughly tested, and does all that a Lawn Mower is expected to do, but with about half the usual power to propel it. It is ever ready for mowing the longest grass, in whatever condition, and on the most uneven ground. It is provided with a Grass-Collecting Box and Movable Plate, so that it can be used to distribute the cuttings on the ground or to gather them.

THOS. GREEN & SONS' LAWN MOWERS

All sizes kept in stock, either man or pony-power. These Lawn Mowers are most effective; cut the grass as it grows; never clog; and act upon wet grass as easily as upon dry. They are perfectly adapted to slopes, undulating lawns, and ridges. They are strong and durable. The width varies from 8 to 30 inches.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

FORTNAM, FORRESTER, & CO.'S

AND OTHER LEADING MAKERS OF

Lawn Tennis Racquets, Balls,
Nets, Poles, Presses, &c.



We are constantly receiving Shipments of the above in all the Latest Designs, and, in soliciting inspection, we have no hesitation in saying our Stock will challenge comparison with any other Establishment in Australia.



THE IMPROVED

“Champion” Lawn Tennis Bat

For which we claim the following advantages :—

Its indestructability ; its suitability for hot climates ; it will not get out of shape ; and can be made any weight.

SUNDRIES.

WATERPROOF BAT CASES,

INDIARUBBER BAT HANDLES,

RULES (Newest Edition),

BALLS, NETS, &c.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

CRICKETING GOODS



BATS.

All warranted of Best Seasoned Wood, well compressed and hammered. Solid (all cane). Treble, double, half, and single cane-handled Bats. Best Match. Best Club. Bats by all best-known makers always kept in stock. Prices on application.

CRICKET BALLS

Of all Descriptions.

STUMPS.

Best Ash Match, complete, with Bails.

YOUTHS' AND BOYS' STUMPS.

☞ Our Cricketing Material is specially selected by an expert—one of the best-known professional cricketers in England.



LEG GUARDS,

WICKET-KEEPING GAUNTLETS,

BATTING GLOVES,

CRICKET CARPET BAGS,

CRICKET SPIKES,

TAPE MEASURES, &c.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

Filters.

CHEAVIN'S IMPROVED SELF-ACTING CARBON.
SLACK AND BROWNLOW'S COMPRESSED CHAR-
COAL FILTERS.

DOULTON'S SYPHON FILTERS.

POCKET FILTERS, FOR TRAVELLERS' USE.

No house should be without a Filter ; don't imagine because the
water looks pure that it is so, as it may be full of microscopical
impurities.

BUY A FILTER AND HAVE IT FILTERED.

Patent Seltzogenes.

We always have a large stock of these, also the necessary
Powders on hand.

ADELAIDE.

SYDNEY,

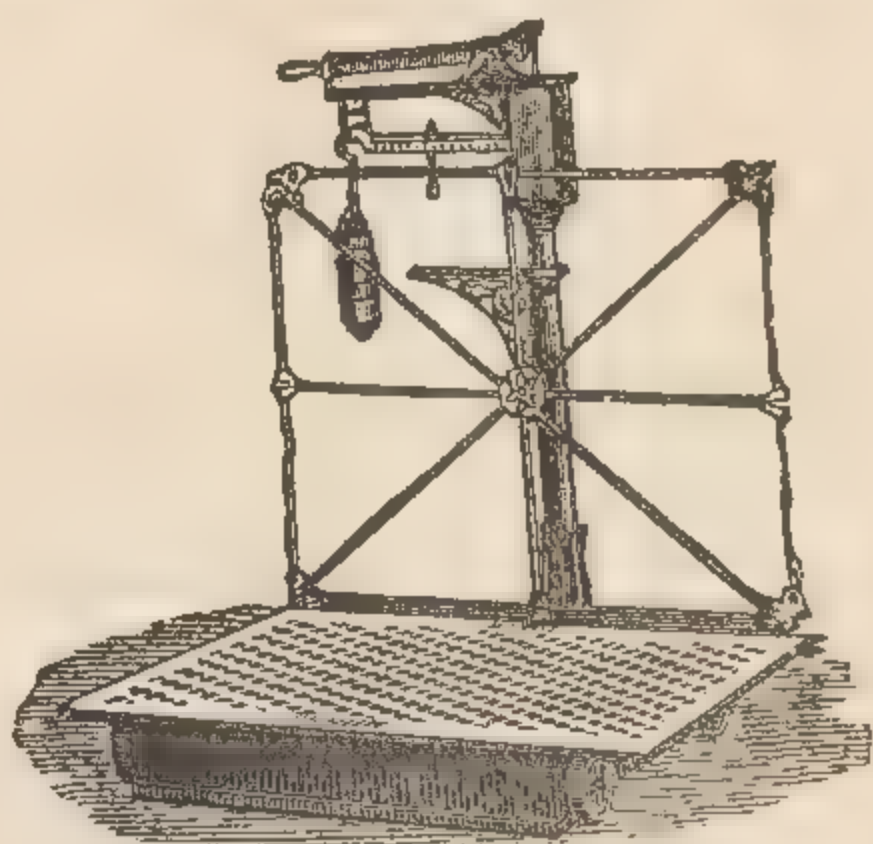
MELBOURNE,

LONDON.

NEW YORK.

McLEAN BROTHERS, RIGG & CO.,

W. & T. AVERY'S PLATFORM WEIGHING MACHINES



Small size, mounted on two wheels.

Strong and heavy pattern Platform Machine, with Back Rail for wool and grain weighing, &c. Constructed entirely of iron, and is unaffected in any climate by the weather.

AVERY'S WEIGHBRIDGES

To weigh Carts, Wagons, &c. All working parts, levers, platform, frame, &c., are made of iron. They are fitted with Relieving Apparatus, which entirely prevents the wear of the knife edges when out of use.

A very large assortment of

AVERY'S SCALES

Of the following kinds always in stock :—

Counter Machines

Gold Scales

Sack Machines

Sugar and Tea Mills

Steelyards

Best and Common Stand Scales

Weights, Brass and Iron.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

General Sundries.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Amateurs' Lathes	Mathematical Instruments
Air Bricks	Netting Needles
Axe Wedges	Oils, Colza
Blue Stone	“ Kerosine
Bolts and Nuts	“ Chinese
Breaking-up Hoes	“ Salad
Butchers' Cleavers	“ Olive
“ Choppers	“ Sperm
“ Knives	“ Palm
“ Steels	“ Linseed
Bullseye Lanterns	“ Lard
Chains, Back	Padlocks
“ Bullock	Paints
“ Drag	Pedometers
“ Plough	Picnic Baskets
“ Tug	“ Knives
“ Trace	Pistols
Chimney Cowls	Ploughs
Chaff Knives	Plough Lines
Closet Pans	Pocket Oilcans
Crosscut Saws	“ Filters
Diamond Cement	“ Railway Lanterns
Dog Muzzles	Revolvers
Gate Chains	Ridging
Gas-making Machines	Roller Skates
Glass Cntters	Rope
Gongs	Scarifiers
Grocers' Show Canisters	Seedsowers
Hay Lashing	Seed Drills
Harrows	Soldering Irons
Horse Holders	“ Caskets
Jewsharps	Springs for Doors
Land Chains	“ Gates
Lunch Baskets	Spud Hooks
Luggage Labels	Spouting and Fixings
Monkey Chains	Surveyors' Arrows

ADELAIDE.

Galvanized Corrugated Roofing Iron.

A large stock of all lengths always on hand. For the guidance of friends ordering we supply the following information :—

24-GAUGE.

5,	6,	7,	8,	9 feet lengths.
85,	70,	60,	50,	45 sheets in case of half a ton.

26-GAUGE.

5,	6,	7,	8,	9 feet lengths.
110,	90,	78,	68,	60 sheets in case of half a ton.

28-GAUGE.

6,	7,	8,	9 feet lengths.
102,	88,	75,	67 sheets in case of half a ton.

The thickness of Galvanized Iron mostly used is 26-gauge.
Each sheet of Galvanized Corrugated Iron covers two feet in width, allowing for lap.

- SPOUTING,
RIDGING,
DOWN PIPING,
HEADS AND SHOES,
BRACKETS,
SPIKES AND TUBES,
SCREWS AND WASHERS, &c.

There are about 36 Screws and Washers to the pound.

Roofing Felt.

In 25-yard rolls. 32 inches wide.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Galvanized Plain Iron.

24-GAUGE.

24,	30,	36 inches wide.
180,	138,	110 sheets to ton.

26-GAUGE.

24,	30,	36 inches wide.
220,	180,	150 sheets to ton.

28-GAUGE.

24,	30,	36 inches wide.
254,	200,	166 sheets to ton.

The above are all made in 6 feet lengths.

Manilla and Wire Rope.

As mistakes frequently occur in ordering Ropes by letter, we take this opportunity of informing our friends in the country that Ropes are always measured in circumference : for instance, a rope that is half an inch thick is a one and a-half inch rope, if three-quarters of an inch thick it is called a two and a-quarter inch rope, and so on.

We append the following table in the hope it may prove useful :—

WEIGHT OF MANILLA ROPE PER FATHOM.

14 oz.,	1 $\frac{1}{4}$,	2 $\frac{1}{4}$,	2 $\frac{3}{4}$,	3 $\frac{5}{8}$,	4 $\frac{1}{4}$,	5 $\frac{1}{2}$,	7 $\frac{1}{2}$ lbs.
2,	2 $\frac{1}{2}$,	3,	3 $\frac{1}{2}$,	4,	4 $\frac{1}{2}$,	5,	6 inch.

TABLE OF STEEL WIRE ROPE.

1 $\frac{1}{4}$, 1 $\frac{3}{8}$, 1 $\frac{1}{2}$, 1 $\frac{7}{8}$, 2, 2 $\frac{1}{4}$, 2 $\frac{3}{8}$, 2 $\frac{1}{2}$, 3, 3 $\frac{1}{4}$, 3 $\frac{3}{8}$, 3 $\frac{1}{2}$, 4 inch.
1 $\frac{1}{4}$, 1 $\frac{1}{2}$, 2 $\frac{1}{4}$, 3, 3 $\frac{1}{2}$, 4 $\frac{1}{2}$, 5, 6, 6 $\frac{3}{4}$, 8, 9 $\frac{1}{2}$, 10, 11 $\frac{1}{2}$, 14 $\frac{1}{2}$ lbs. per fathom.
12, 15, 21 $\frac{1}{2}$, 25 $\frac{3}{4}$, 33 $\frac{1}{2}$, 39, 48, 55, 65, 74, 86, 95 $\frac{1}{2}$, 108, 135 cwt. working load.
3 $\frac{1}{2}$, 5, 6 $\frac{3}{4}$, 8 $\frac{1}{4}$, 10 $\frac{1}{4}$, 12 $\frac{1}{2}$, 15, 17 $\frac{1}{2}$, 20 $\frac{1}{4}$, 23 $\frac{1}{4}$, 26 $\frac{3}{4}$, 30, 33 $\frac{3}{4}$, 41 $\frac{1}{2}$ tns. breaking strain.

Troughing.

Strong Wrought-Iron Cattle or Sheep Troughing with angle iron ends, in either 6 or 12 feet lengths. Estimates given for any quantity.
Size, 15" x 8", 18" x 10", 21" x 12".

Fencing Wire, Plain and Barbed.

Fencing Wire is amongst our leading lines of import, and finding the demands for our brands to be so great we have been induced to import large quantities in order to supply these demands, hence from the fact of our landing such large stocks we are in a position to quote same at very low prices.

Amount of Barbed Wire Required for Fences.

Estimated number of pounds of barbed wire required to fence space or distance mentioned with one, two, or three lines of wire, based upon each pound of wire measuring one rod (16½ feet).

	1 Line.	2 Lines.	3 Lines.
1 Square Acre	50½ lbs.	101½ lbs.	152 lbs.
1 Side of a Square Acre ...	12½ lbs.	25½ lbs.	38 lbs.
1 Square Half-Acre	36 lbs.	72 lbs.	108 lbs.
1 Square Mile	1280 lbs.	2560 lbs.	3840 lbs.
1 Side of a Square Mile ...	320 lbs.	640 lbs.	960 lbs.
1 Rod in Length	1 lb.	2 lbs.	3 lbs.
100 Rods in Length	100 lbs.	200 lbs.	300 lbs.
100 Feet in Length	6½ lbs.	12½ lbs.	18½ lbs.

		WEIGHT REQUIRED PER MILE OF PLAIN FENCING WIRE.															
Gauge.		Length per Cwt.	One Wire.			Two Wires.			Three Wires.			Four Wires.			Five Wires.		
		YDS.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.
No.	5	332	5	1	5	10	2	12	15	3	18	21	0	24	26	2	2
"	6	406	4	1	9	8	2	19	13	0	0	17	1	10	21	2	19
"	7	484	3	2	15	7	1	2	10	3	17	14	2	4	18	0	19
"	8	592	2	3	24	5	2	21	8	3	18	11	3	14	14	3	11
"	9	732	2	1	17	4	3	6	7	0	23	9	2	12	12	0	1
"	10	922	1	3	17	3	3	7	5	2	25	7	2	15	9	2	4

Wheelbarrows.

Wrought-Iron + Wheelbarrow, with Wrought-Iron Wheel.

The sides of the frame upon which the body rests are of Angle Iron, the wheels are of Wrought-Iron, with round iron Spokes and Cast-Iron Boss.

They are made either Galvanized or Painted, in different sizes.

Hoop Iron.

Approximate Length in Feet of a Bundle of Iron Hoop.

5/8,	3/4,	7/8,	1,	1 1/8,	1 1/4,	1 1/2,	1 3/4,	2 inch.
800,	640,	450,	345,	270,	210,	150,	115,	85.
Each bundle weighs 56 lbs.								

SYDNEY,

MELBOURNE,

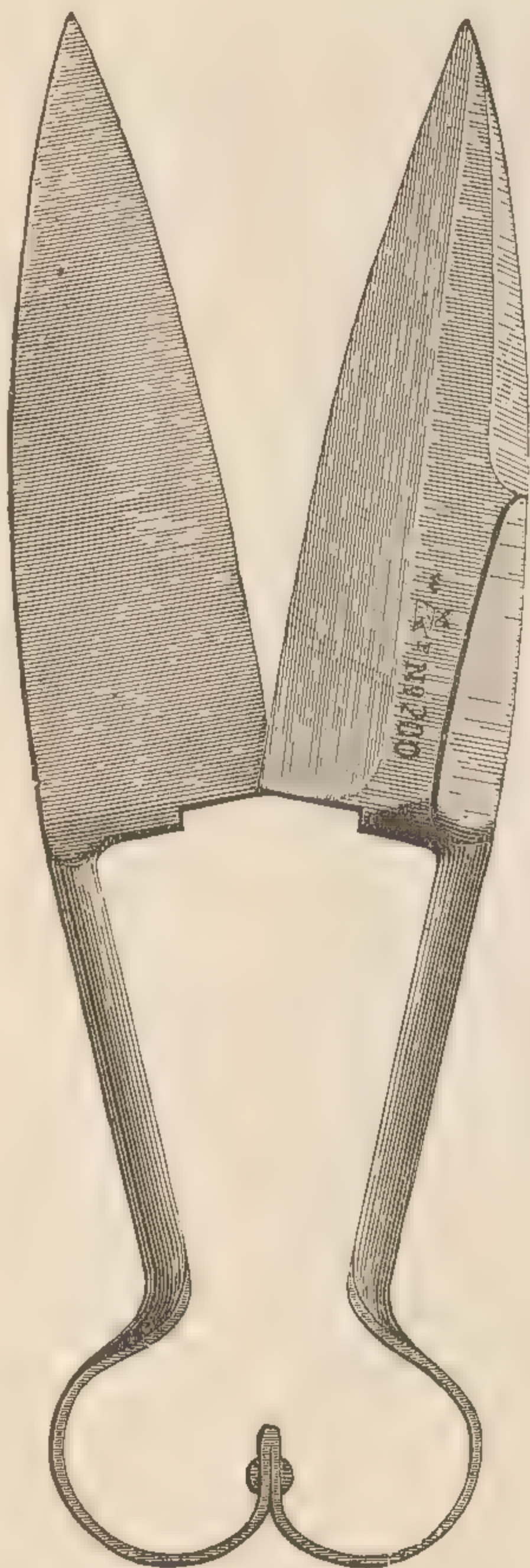
LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

SHEEP SHEARS

Of the following Makers kept in stock :—



BURGEON & BALL'S,

BROWN'S,

MARSHALL'S,

WARD & PAYNE'S,

BURY'S,

BALL BROS.'

SORBY'S.

ADELAIDE.

SYDNEY,

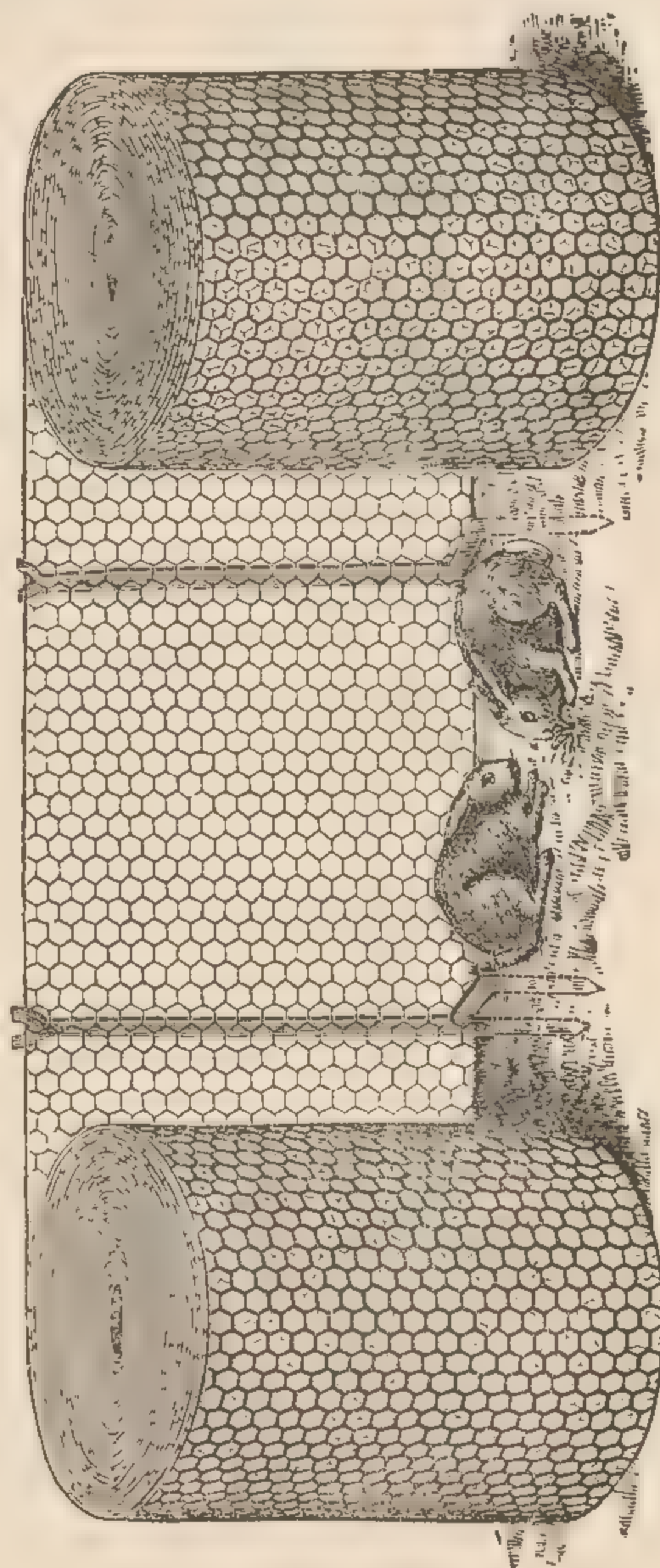
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

WIRE NETTING



ALL WIDTHS AND MESHES

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

Wire Netting.

We have Large Shipments of Galvanized Wire Netting constantly arriving, especially of the following sizes, for which the demand is greatest, namely :—

1½-inch	Mesh,	30 and 36 inches wide.
1⅝	“ “	30, 36, and 42 inches wide.
2	“ “	30, 36, and 42 inches wide.
3	“ “	42 and 48 inches wide.

We execute Indents for the above, and also for any mesh and width, with wire woven along the edges, and also through the middle when required.

We shall be glad to furnish quotations either for small or large lines.

Iron Fence Standards.

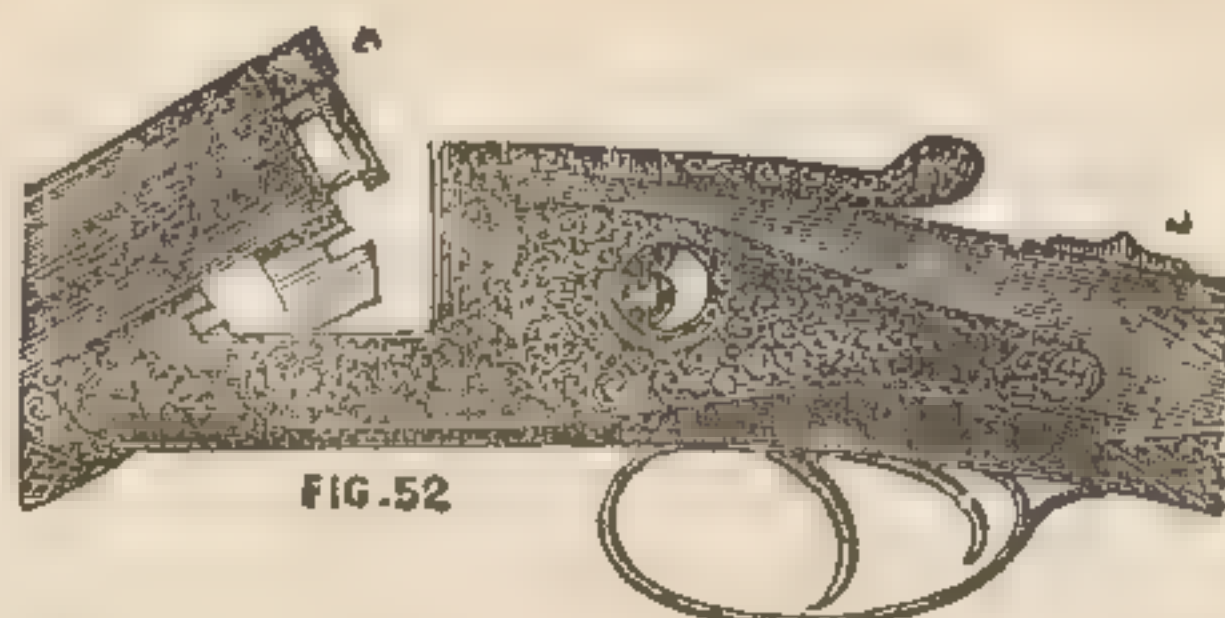
These Standards are made in various styles and sizes, and are pierced for any number of wires required. We shall always be pleased to quote for the above, either by the dozen or per ton.

Gates. Hurdles.

We can supply wrought-iron Gates for Carriage Drives, Villa Residences, Churches, &c.; also Field and Garden Gates of various designs.

The Hurdles are made of wrought-iron throughout. We have executed large orders with great satisfaction to our customers.

GUNS, AMMUNITION, &c.



Messrs. W. & C. Scott & Son's Guns

Have so wide a reputation for hard hitting that it is almost superfluous referring to it here. We may state, however, that on the River and in the South-East, where large game—often very wild—form the sport, Scott's Guns are now almost invariably used, whilst the reputation they possess for pigeon shooting is unrivalled. Several new patterns have been recently brought out by the Firm containing all their recent improvements, whilst their usual attention to finish, balance, and handiness of each Gun is always given.

We always endeavour to keep in stock the following high-class Guns, besides a full stock of their Rifles of all calibres, and Revolvers :—

DESCRIPTIONS.

Pigeon Club D.—This is the Gun which has been principally instrumental in bringing Scott's Guns so much to the front. It is made specially for work ; plain, but perfectly finished ; with treble grip, "than which there is no stronger;" best Damascus barrels, rebounder locks, left full, right modified choke. Weight, about $7\frac{1}{2}$ lbs. Price,

Pigeon Club C.—A similar Gun to above as regards weight and construction, but with higher and more elaborate finish, and with Scott's Patent Adjustable Lump. These Guns are so beautifully balanced that, although really heavy Guns, the fact is not apparent in handling. Price,

Victoria.—This Gun is top action bar lock, rebounder, double grip, first-class Damascus barrels, left choke, right modified. Shooting guaranteed first-class. A handsome Gun, and is considered by Messrs. Scott to be the cheapest and best value Gun they make. Price,

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

GUNS, &c. (*continued*).

Excellentia Hammerless.—This is a new pattern Gun recently brought out, and is highly finished, containing all of the makers' most recent improvements, including their Automatic Safety Bolt, which has been frequently described as the simplest and best by the highest authorities. Price,

Scott's Muzzle-loaders from two pounds upwards.

Scott's Rifles.

Revolvers.—All Bores pronounced the simplest and strongest.

Several other patterns of Guns by other Makers, which, of course, are sold at much lower prices.

The public, whether purchasers or not, are cordially invited to inspect our stock of Firearms, when they will meet with the greatest courtesy from our Gunsmith, Mr. Evans, to whom all Guns are submitted for examination before being sent out. We have found this system a great success, and saving of trouble; it always insures a weapon being sent out in good order.

Scott's Catalogues supplied on application.

All repairs effected on shortest notice.

Ammunition in all its varieties is another specialty of which we have given it our fullest attention. We always keep in stock Sporting Cartridges—paper, brass, and solid brass—in all bores; Cartridge Cases—paper and brass—in all bores and qualities, Percussion Caps, Anvils, Gun Wadding, Re-loading Tools, and all Breech-loading Gun Material. Cartridges of American and English manufacture. Gunpowder, Shot, Caps, &c., &c.

AGENTS FOR THE AUTOMATIC SPORTING SHRAPNEL SHELLS.

BERTHON BOATS.

These Boats are made of calvas, and we can recommend them as being suitable for sporting, as they are light and draw but little water. Without any trouble they can be folded up and carried with ease, thus enabling one to lift it out of a swamp and carry it to any other tract of water. They are made of double canvas, which enables them to take considerable weight. Different sizes in stock. Weigh of Dingies, 54 lbs., with Sculls.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

We are Agents for the

Rhenish Dynamite Co.'s Genuine Dynamite.

The SAFEST, CHEAPEST, and MOST POWERFUL of all Explosives.

We enumerate some of its advantages over other Explosives:—

SAVING OF LABOUR IN BORING, as labour, not the powder, is the great expense in mining operations. With Dynamite smaller and fewer boreholes are required, hence a great saving of tools and fuse; and, as it requires no tamping (loose sand, clay, or even water being sufficient), there is, therefore, perfect immunity from accidents in stemming boreholes, as well as saving of time and expense.

GREAT FACILITY AND EFFICACY UNDER WATER, AND IN WATER-BLEEDING ROCKS.

ABSENCE OF SMOKE.

EXTREME VELOCITY OF EXPLOSION, which makes it as effective in fissures as sound rock. Blasting with it can, therefore, be more rapidly performed than with powder, which is at all times important, and especially so in sinking shafts and driving tunnels.

PERFECT SAFETY when the printed instructions are followed. Although thousands of tons of Dynamite have been used, there is no accident from it on record whilst in transit and storage, and none have occurred in mines except through unwarrantable carelessness.

We sell immense quantities of Dynamite for TUNNELLING, MINING, AND CLEARING LAND OF STUMPS OF TREES, and for other purposes where powder was formerly used.

Full particulars on application, or free per post.

Beware of spurious imitations; they are about.

Dynamite Detonators.

Double, treble, and quadruple force.

Patent Safety Fuse.

Single and double tape.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

Leather Belting.



Best Single Straps

Best Double Straps

All widths.

Pulleys.

TURNED AND BORED DRIVING PULLEYS

With Flat or Rounding Edges.

These Pulleys are cast from patterns specially designed for driving Agricultural Machinery.

Special Lists of this class of work free on application.

ADELAIDE.

SYDNEY,

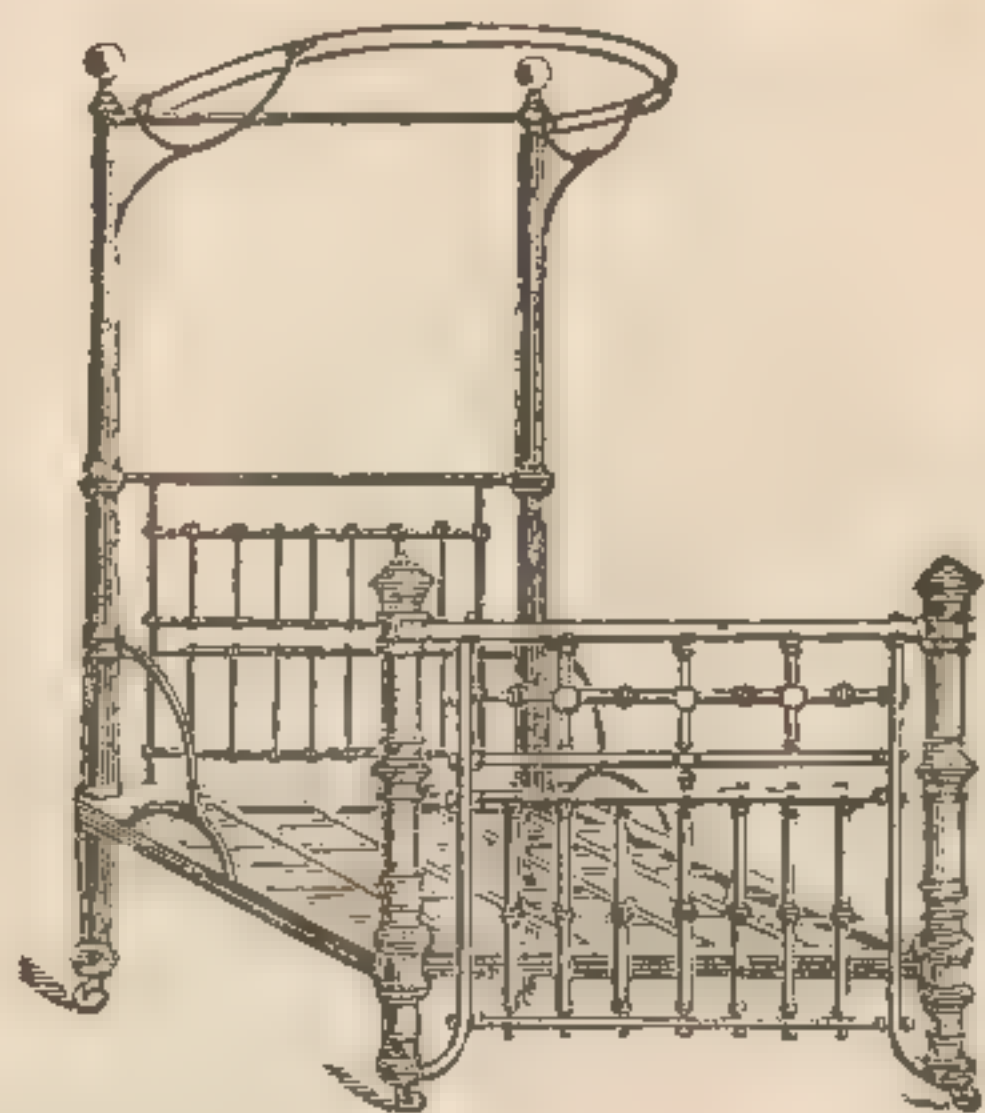
MELBOURNE,

LONDON,

NEW YORK,

McLEAN BROTHERS, RIGG & CO.,

Iron Bedsteads.



FOUR-POST TAPERED AND PARALLEL TUBULAR
IRON BEDSTEADS.

HALF-TESTER TAPERED AND PARALLEL
TUBULAR IRON BEDSTEADS.

FRENCH BEDSTEADS.

STUMP BEDSTEADS.

CHILDREN'S BED COTS.

CHILDREN'S SWING COTS.

CHAIR BEDSTEADS.

We have Stock of the above in

JAPANNED GREEN, BLUE, BLACK, MAROON, OR FRENCH GREY,
RELIEVED WITH GOLD.

Also, a very Handsome Assortment of

FRENCH FOUR-POST AND HALF-TESTER BED-
STEADS, IN BRASS,

Of all the Latest Designs.

MATTRASSES, PALLIASSES, PILLOWS, BOLSTERS

In Hair, Feathers, Fibre, Pulu, &c., &c.

ADELAIDE.

SYDNEY,

MELBOURNE,

LONDON,

NEW YORK.

The following is a

LIST OF OUR AGENCIES

SYDNEY,

MELBOURNE,

Marshall, Sons, & Co.

"Davis" Vertical Feed High
Arm Sewing Machines.

John Hall & Son.

U. S. Wind, Engine, and
Pump Company.

C. L. Hett.

W. & C. Scott & Sons.

McCormick Harvesting Ma-
chine Company.

Automatic Sporting Shrapnel
Shell Company.

Patent Enamel Company.

Harland's.

Berthon Boat Company.

Goldsworthy & Sons.

Baldwin's.

Rhenish Dynamite Company.

Harrington's.

Walker's.

Singer's.

Engines, Threshing Machines,
&c.

Hand and Treadle Machines.

Blasting & Sporting Powders.

Halladay Windmills.

Centrifugal Pumps.

Celebrated Choke-bore Guns.

McCormick Reapers & Binders

Sporting Shells.

Enamel Plates, &c.

Varnish.

Boats.

Glass, Emery Paper, &c.

Refrigerators.

Dynamite.

Patent Chair Springs.

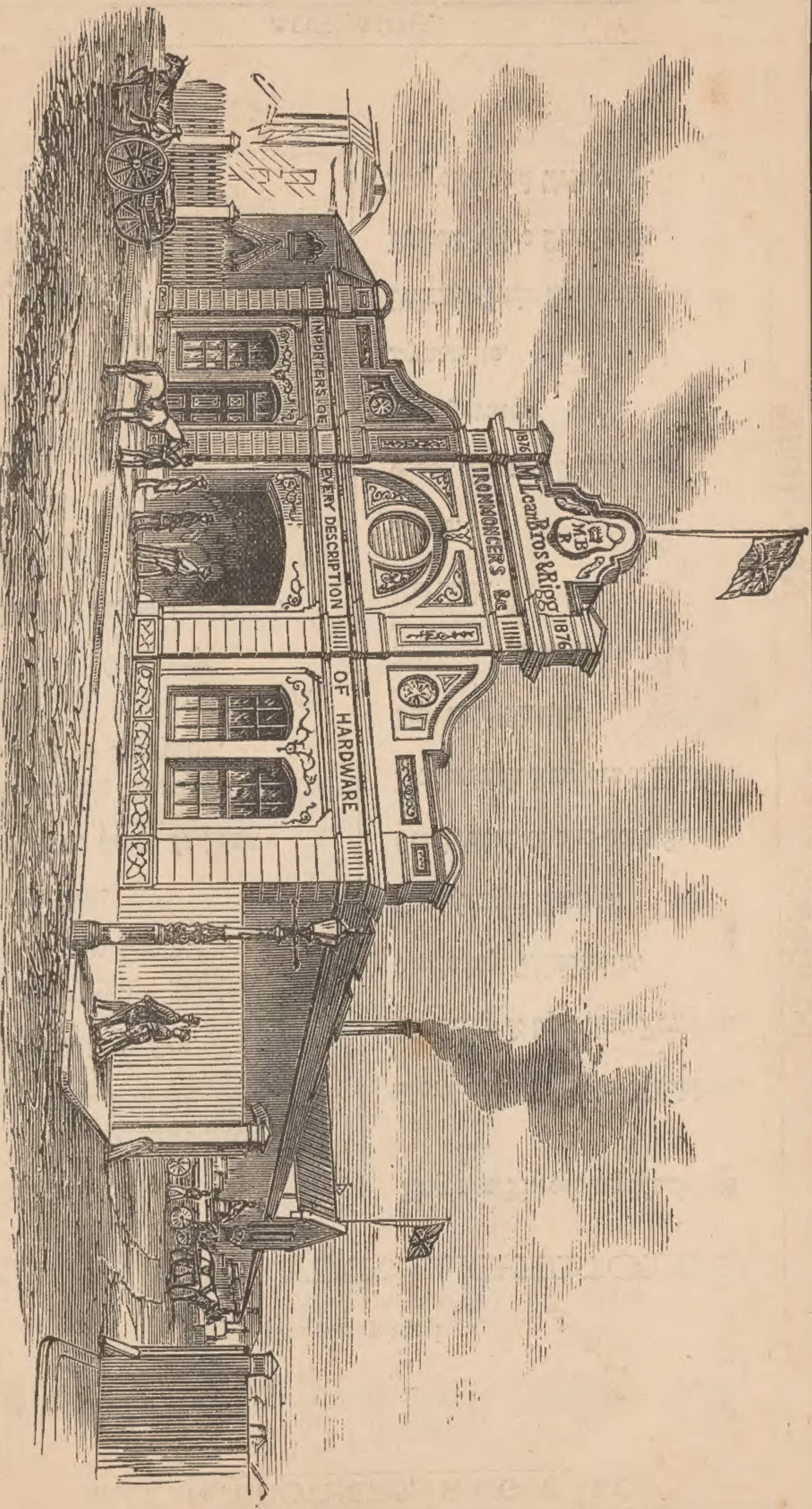
Patent Wire Strainers.

Bicycles and Tricycles.

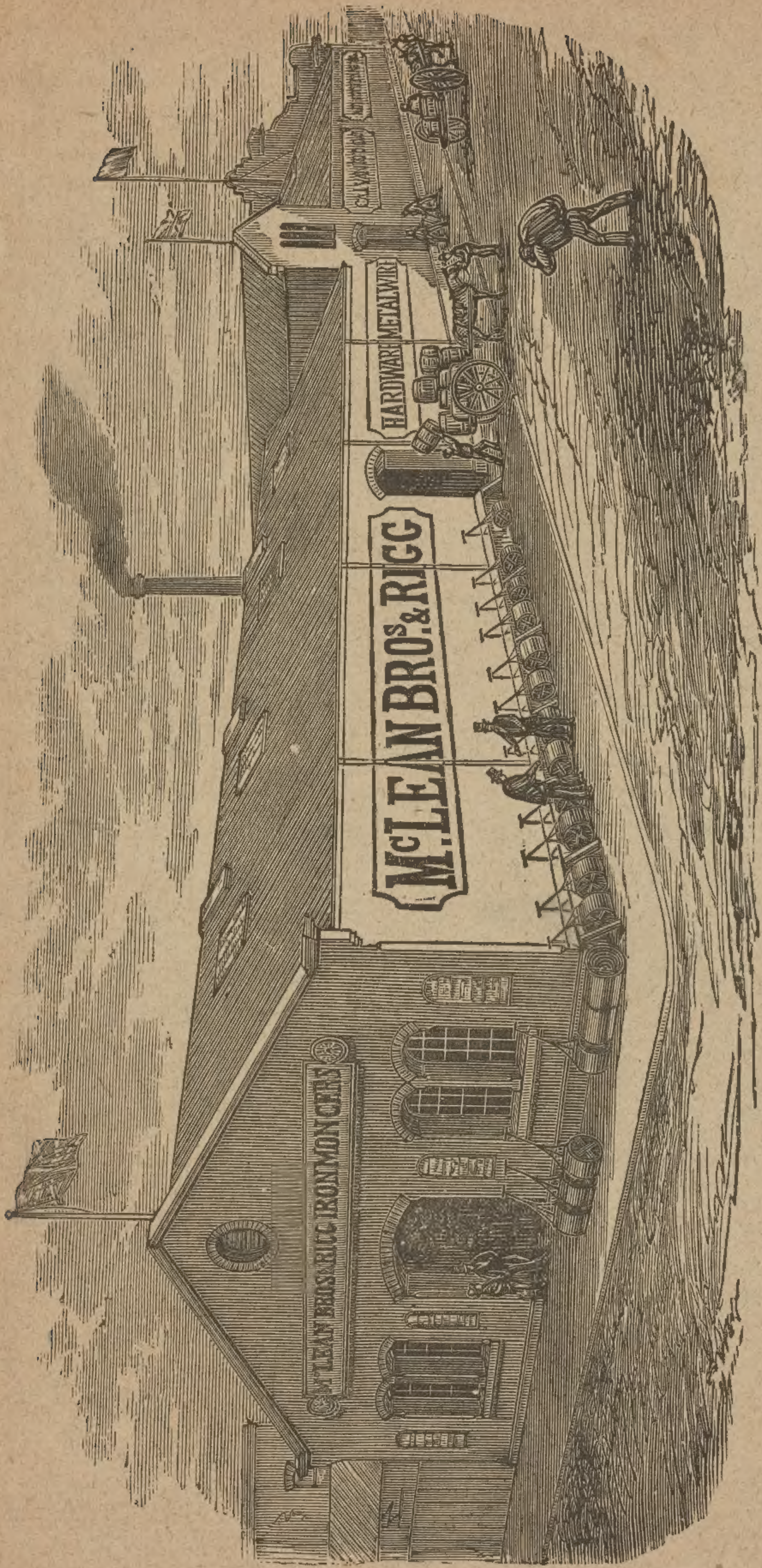
LONDON,

NEW YORK,

ADELAIDE.



IRON, WIRE, AND MACHINERY WAREHOUSE,
190, BOURKE STREET, WEST, MELBOURNE.



GENERAL STORE & WAREHOUSE,

183, LITTLE COLLINS STREET, WEST, MELBOURNE

